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10 15 20 cgg g 321 Arg <210> 411 <211> 635 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 84..635 <221> sig peptide <222> 84..542 <223> Von Heijne matrix score 4.90000009536743 seq MIVSLAAVAWVGQ/QV <400> 411 gggttgtggt tggtgtgcgg gtttcggttg gaggactcgt tggggaggtg gcctgcgctt 60 gtagagactg catccccgag acg atg gcg gag gga gat aat cgc agc acc aac 113 Met Ala Glu Gly Asp Asn Arg Ser Thr Asn -150 ctg ctg gct gca gag act gca agt ctg gaa gaa cag ctg caa gga tgg 161 Leu Leu Ala Ala Glu Thr Ala Ser Leu Glu Glu Gln Leu Gln Gly Trp -140 -135 gga gaa gtg atg ctg atg gct gat aaa gtc ctc cga tgg gaa aga gcc 209 Gly Glu Val Met Leu Met Ala Asp Lys Val Leu Arg Trp Glu Arg Ala -125 -120 -115 tgg ttt cca cct gcc atc atg ggt gtg gtt tct ttg gtg ttt ctg att 257 Trp Phe Pro Pro Ala Ile Met Gly Val Val Ser Leu Val Phe Leu Ile -105 -100 atc tac tat cta gat cca tct gtt ctg tcc ggc gtt tcc tgt ttt gtt 305 Ile Tyr Tyr Leu Asp Pro Ser Val Leu Ser Gly Val Ser Cys Phe Val -90 ~85 atg ttt ttg tgc ttg gct gac tac ctt gtt ccc att cta gcg cct aga 353 Met Phe Leu Cys Leu Ala Asp Tyr Leu Val Pro Ile Leu Ala Pro Arg -70 -75 att ttt ggc tcc aat aaa tgg acc act gaa caa cag caa aga ttc cat 401 Ile Phe Gly Ser Asn Lys Trp Thr Thr Glu Gln Gln Arg Phe His -55 qaa att tqc aqc aat cta qta aaa act cqa cqc aqa gct gtg ggt tgg 449 Glu Ile Cys Ser Asn Leu Val Lys Thr Arg Arg Arg Ala Val Gly Trp -40 497 tgg aaa cgc ctc ttc aca cta aag gaa gaa aaa cct aag atg tac ttc Trp Lys Arg Leu Phe Thr Leu Lys Glu Glu Lys Pro Lys Met Tyr Phe -25 -20 545 atg acc atg atc gtt tcc ctt gct gcg gtt gct tgg gtg gga caa caa Met Thr Met Ile Val Ser Leu Ala Ala Val Ala Trp Val Gly Gln Gln -10 - 5 gtc cac aac ctg ctt ctc acc tac ctg ata gtg act tcc tta cta ttg Val His Asn Leu Leu Leu Thr Tyr Leu Ile Val Thr Ser Leu Leu Leu 10 ctt cct gga cta aac caa cat gga atc att ttg aag tac att 635 Leu Pro Gly Leu Asn Gln His Gly Ile Ile Leu Lys Tyr Ile 20 25 <210> 412 <211> 335

<212> DNA

<213> Homo sapiens

224

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<222> 33..335
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<222> 33..110
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                                                                       53
                                    Met Ala Ala Leu Lys Ala Leu
                                        -25
qtq tcc qqc tqt ggq cgq ctt ctc cqt ggg cta cta gcg ggc ccg qca
                                                                      101
Val Ser Gly Cys Gly Arg Leu Leu Arg Gly Leu Leu Ala Gly Pro Ala
                                    -10
                -15
gcg acc agc tgg tct cgg ctt cca gct cgc ggg ttc agg gaa gtg gtg
                                                                      149
Ala Thr Ser Trp Ser Arg Leu Pro Ala Arg Gly Phe Arg Glu Val Val
                            5
gag acc caa gaa ggg aag aca act ata att gaa ggc cgt atc aca gcg
                                                                      197
Glu Thr Gln Glu Gly Lys Thr Thr Ile Ile Glu Gly Arg Ile Thr Ala
                                            25
                        20
act ccc aag gag agt cca aat cct cct aac ccc tct ggc cag tgc ccc
                                                                      245
Thr Pro Lys Glu Ser Pro Asn Pro Pro Asn Pro Ser Gly Gln Cys Pro
                    35
atc tgc cgt tgg aac ctg aag cac aag tat aac tat gac gat gtt ctg
                                                                      293
Ile Cys Arg Trp Asn Leu Lys His Lys Tyr Asn Tyr Asp Asp Val Leu
                50
                                    55
                                                                      335
ctg ctt agc cag ttc atc cgg cct cat gga ggc atg ctg ccc
Leu Leu Ser Gln Phe Ile Arg Pro His Gly Gly Met Leu Pro
<210> 413
<211> 158
<212> DNA
<213> Homo sapiens
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<222> 25..156
<221> sig_peptide
<222> 25..93
<223> Von Heijne matrix
      score 4.90000009536743
      seq LVGFKQVVAWTFA/SD
<221> misc_feature
<222> 17
<223> n=a, g, c or t
<400> 413
agaaactgac atttgbntgt ttta atg ggg tcc ctg ctg ttc atc agg cag
                                                                       51
                           Met Gly Ser Leu Leu Phe Ile Arg Gln
                                       -20
aca ctt gtg ggc ttt aaa cag gtc gtt gct tgg acc ttt gct tct gat
                                                                       99
Thr Leu Val Gly Phe Lys Gln Val Val Ala Trp Thr Phe Ala Ser Asp
                -10
                                    ~5
tca cat tgt gsa aaw gtg gww atg gtd wtc tws agt cag ttg arw aat
Ser His Cys Xaa Xaa Val Xaa Met Val Xaa Xaa Ser Gln Leu Xaa Asn
        5
                            10
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225

158 ccc cca ctg gg Pro Pro Leu 20 <210> 414 <211> 202 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 59..202 <221> sig_peptide <222> 59..130 <223> Von Heijne matrix score 4.90000009536743 seq LLLRGSLLASXRA/XX <221> misc_feature <222> 160 <223> n=a, g, c or t<400> 414 ctgggagega ccgctccgct cgtctcgttg gttccggagg tcgctgcggc ggtgggaa 58 atg ctg gcg cgc gcg gcg gag grc act ggg gcc ctt ttg ctg agg ggc 106 Met Leu Ala Arg Ala Ala Glu Xaa Thr Gly Ala Leu Leu Leu Arg Gly -20 -15 tet eta etg get tet gre ege gek yeg sys veg eet eet etg gga ttg 154 Ser Leu Leu Ala Ser Xaa Arg Ala Xaa Xaa Pro Pro Leu Gly Leu - 5 1 see egn aac acc gwt ggt act gtt egt gee gea gea gga gge etg ggt 202 Xaa Arg Asn Thr Xaa Gly Thr Val Arg Ala Ala Ala Gly Gly Leu Gly 15 <210> 415 <211> 229 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 146..229 <221> sig peptide <222> 146..196 <223> Von Heijne matrix score 4.90000009536743 seq LLSFCLCSDFISQ/DA <400> 415 gtmaaactcc cgcagacttc tctgtagatc gctgagcgat actttcggca gcacctcctt 60 gatteteagt tttgetggag geegeaacea ggeeetacte aacceteett eecaggagge 120 ccaggecece aageteagat caeee atg aat gee tee etc ttg tet tte tge 172 Met Asn Ala Ser Leu Leu Ser Phe Cys -15 ctt tgt tca gat ttc atc tct caa gat gcc ctc ctt ctc act gtc ata 220 Leu Cys Ser Asp Phe Ile Ser Gln Asp Ala Leu Leu Leu Thr Val Ile 5 1 229 ttt cct ccc Phe Pro Pro 10

<210> 416 <211> 265 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 27..263 <221> sig_peptide <222> 27..206 <223> Von Heijne matrix score 4.90000009536743 seq LVGVIVHSGQAHA/GH <400> 416 atgatgaaca aataaggttt ccctgg atg cta aac atg gag cct tac aca gtt 53 Met Leu Asn Met Glu Pro Tyr Thr Val -55 -60 101 tca gga atg gct cgc caa gat tct tct tct gaa gtt ggg gaa aat ggg Ser Gly Met Ala Arg Gln Asp Ser Ser Ser Glu Val Gly Glu Asn Gly -50 -45 -40 cga agt gtg gat cag ggc ggt gga gga tcc cca cga aaa aag gtt gcc 149 Arg Ser Val Asp Gln Gly Gly Gly Ser Pro Arg Lys Lys Val Ala -35 -25 ctc aca qaa aac tat gaa ctt gtc ggt gtc atc gta cac agt ggg cag 197 Leu Thr Glu Asn Tyr Glu Leu Val Gly Val Ile Val His Ser Gly Gln -5 -15 -10 245 gca cac gca ggc cac tac tat tcc ttc att aag gac agg cga ggg tgt Ala His Ala Gly His Tyr Tyr Ser Phe Ile Lys Asp Arg Arg Gly Cys 265 gga aaa gga aag tgg ctg gg Gly Lys Gly Lys Trp Leu <210> 417 <211> 228 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 160..228 <221> sig peptide <222> 160..219 <223> Von Heijne matrix score 4.90000009536743 seq LHLXSSRXPPILA/SP <221> misc_feature <222> 166..167,190 <223> n=a, g, c or t <400> 417 ttgtctgtct taggcctgga cactgttgtt gacttatttc cagattttaa tttctctttg 60 gttgaagact gccaactgtc tcatagagtg tttgatttat ttatttatty athtwgacat 120 gaggwykctc tctgcmaacc caggctggak tgcagtgac atg atv nng gct cac 174 Met Xaa Xaa Ala His -20 ttc agc ctc cac ctc nkg agc tca agg art cck ccc atc tta gcc tcc 222

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227
Phe Ser Leu His Leu Xaa Ser Ser Arg Xaa Pro Pro Ile Leu Ala Ser
                   -10
                                        - 5
cca gta
                                                                      228
Pro Val
<210> 418
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<221> sig_peptide
<222> 125..175
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aaaagtttgt aataagttgc actttcatca agactgtatt agggagtcca gtctccccac
                                                                       60
atccttgtca gcacgggatg acatcagtct tttaaatctt accaacttat tgggaaaaaa
                                                                      120
aaaa atg ata cgt cct gtt tgt gaa ttg agc att ttt ttc acc tat gta
                                                                      169
     Met Ile Arg Pro Val Cys Glu Leu Ser Ile Phe Phe Thr Tyr Val
             -15
                                 -10
cta gcc att tac ata tct cct tct gtg aat tgt ctg ttt ata tcc ttt
                                                                      217
Leu Ala Ile Tyr Ile Ser Pro Ser Val Asn Cys Leu Phe Ile Ser Phe
                        5
                                             10
cct gcg gg
                                                                      225
Pro Ala
15
<210> 419
<211> 293
<212> DNA
<213> Homo sapiens
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<222> 42..293
<221> sig_peptide
<222> 42..128
<223> Von Heijne matrix
      score 4.80000019073486
      seq LLSARLLSQEKRA/AE
<400> 419
gtgctctatg gagctattgc ggccgtgggt ggtcgcgggc r atg cgg ggc tgc cag
                                                                       56
                                               Met Arg Gly Cys Gln
                                                                      104
ctc ctc ggg ctt cgt agc tct tgg ccc ggg gac cta cta agt gct cgg
Leu Leu Gly Leu Arg Ser Ser Trp Pro Gly Asp Leu Leu Ser Ala Arg
                -20
                                    -15
                                                                      152
ctc ttg tcc caa gag aag cgg gca gcg gaa acg cac ttt ggg ttt gag
Leu Leu Ser Gln Glu Lys Arg Ala Ala Glu Thr His Phe Gly Phe Glu
act gtg tcg gaa gag gag aag agg ggg gac tta aca tca gtt gta agt
                                                                      200
Thr Val Ser Glu Glu Glu Lys Arg Gly Asp Leu Thr Ser Val Val Ser
                        15
    10
cta gag tac cct gaa gtg caa tta cag ggt caa agg gtc tat gcm ttc
                                                                      248
Leu Glu Tyr Pro Glu Val Gln Leu Gln Gly Gln Arg Val Tyr Ala Phe
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30
                                        35
ctg tca ccc att tgt acc tat ggc tct gag gga tgc agc ctc aag
                                                                      293
Leu Ser Pro Ile Cys Thr Tyr Gly Ser Glu Gly Cys Ser Leu Lys
                45
                                    50
<210> 420
<211> 194
<212> DNA
<213> Homo sapiens
<220>
<221> CDS
<222> 30..194
<221> sig_peptide
<222> 30..134
<223> Von Heijne matrix
      score 4.80000019073486
      seq PWVLDIFLTLVFA/LG
<400> 420
agttgctaga aagcaatgcg cctattcac atg gag aat ctt ccc ttt cct cta
                                                                       53
                                Met Glu Asn Leu Pro Phe Pro Leu
                                -35
                                                    -30
aaa tta ctt agt gcc tca tca cta aac acc ccc agc tcc aca cca tgg
                                                                      101
Lys Leu Leu Ser Ala Ser Ser Leu Asn Thr Pro Ser Ser Thr Pro Trp
                            -20
gtg ttg gat atc ttc ctc acc ttg gtg ttt gcc ctg ggg ttc ttc ttc
Val Leu Asp Ile Phe Leu Thr Leu Val Phe Ala Leu Gly Phe Phe Phe
    -10
                        - 5
cta tta ctc ccc tac ttc tct tac ctc cgt tgt gac aac cca cca
                                                                      194
Leu Leu Pro Tyr Phe Ser Tyr Leu Arg Cys Asp Asn Pro Pro
                10
                                    15
<210> 421
<211> 90
<212> DNA
<213> Homo sapiens
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<222> 29..88
<221> sig_peptide
<222> 29..67
<223> Von Heijne matrix
      score 4.80000019073486
      seg MCVCVFAIFGVRC/CV
<221> misc feature
<222> 61
<223> n=a, g, c or t
<400> 421
tatttgggat ttgttgctct gtgtgtat atg tgc gtg tgt gtg ttt gct ata
                               Met Cys Val Cys Val Phe Ala Ile
                                                                       90
ttt ggg gtn cgt tgc tgt gtg tgt gtc cgc tgt att tg
Phe Gly Val Arg Cys Cys Val Cys Val Arg Cys Ile
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<210> 422

229

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<212> DNA
<213> Homo sapiens
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<221> CDS
<222> 22..159
<221> sig peptide
<222> 22..153
<223> Von Heijne matrix
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      seq XPCPLLFPGACFP/CP
tcatttgggt ttttatttaa t atg att tgc ata ttt tac tct aag att tcc
                        Met Ile Cys Ile Phe Tyr Ser Lys Ile Ser
                                        -40
                                                                       99
atc tct gtc ggc tgt ggg agg aca gcc gag caa gtt gga tgt aaa
Ile Ser Val Gly Cys Gly Arg Thr Ala Ala Glu Gln Val Gly Cys Lys
                                    -25
                -30
cag agg tca ttt cac ckc ccy tgc cct ctg ctg ttt cct ggt gcd tgc
                                                                      147
Gln Arg Ser Phe His Xaa Pro Cys Pro Leu Leu Phe Pro Gly Ala Cys
            -15
ttt ccc tgc cca ac
                                                                      161
Phe Pro Cys Pro
<210> 423
<211> 420
<212> DNA
<213> Homo sapiens
<220>
<221> CDS
<222> 333..419
<221> sig_peptide
<222> 333..380
<223> Von Heijne matrix
      score 4.80000019073486
      seq ICVSLMASDGASS/PV
<221> misc_feature
<222> 323..324,328
<223> n=a, g, c or t
<400> 423
ctgccgcygg acacgggttc ttccagcttt tggctattgt gaataacgct gctatggaca
tgaatgtaca aacatccctt cagatcctcc tttcagttct tgtgggtaca taccccgagt
                                                                      120
ggaactgtgg catcatatgg taactctgtg tttaacattt tgaggaacca ccctactgct
                                                                      180
teccacagag getgtaccag tttacttece accaacagtg caaggattee aattteteca
                                                                      240
catccgtgcc aacactattt tctttttgtc gctgttgtca ttgtttgtct ggaaaatagc
                                                                      300
catgctgagg ggtgagaggt grnnghanrg tt atg aat ttg att tgc gtt tcc
                                                                      353
                                    Met Asn Leu Ile Cys Val Ser
                                        -15
ctg atg gcc agt gat ggg gca tct tcc cct gtg ctt ggt ggc tct tca
                                                                      401
Leu Met Ala Ser Asp Gly Ala Ser Ser Pro Val Leu Gly Gly Ser Ser
                -5
                                    1
cac tct tcc tcc cwt rgg g
                                                                      420
His Ser Ser Ser Xaa Xaa
        10
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230

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<213> Homo sapiens
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<221> CDS
<222> 256..432
<221> sig peptide
<222> 256..396
<223> Von Heijne matrix
     score 4.80000019073486
     seq LVSALPQASFSSS/SE
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60
120
                                                                 180
ggaggaaggg agggggagag acagagacct agaggggctg aagacccaga cagagctggc
agagctactg agaagaggac tggagcgctc tgagagcctc tcaagatctt ttgggggagc
                                                                 240
                                                                 291
ccaataaatg tgaac atg gga tet gtc acr gga get gtc etc aag acg eta
                Met Gly Ser Val Thr Gly Ala Val Leu Lys Thr Leu
                       -45
ctt ctg tta tct act caa aat tgg aac aga gtc gaa gct ggg aat tcc
                                                                 339
Leu Leu Ser Thr Gln Asn Trp Asn Arg Val Glu Ala Gly Asn Ser
                                      -25
                   -30
tat gac tgt gat gat cct ctt gtg tct gcc ttg cct cag gca tcc ttc
                                                                 387
Tyr Asp Cys Asp Asp Pro Leu Val Ser Ala Leu Pro Gln Ala Ser Phe
                                  -10
               -15
age agt tet tee gag etc tee age agt cat agt eet gga tit gea
                                                                 432
Ser Ser Ser Ser Glu Leu Ser Ser Ser His Ser Pro Gly Phe Ala
<210> 425
<211> 419
<212> DNA
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<222> 278..418
<221> sig_peptide
<222> 278..370
<223> Von Heijne matrix
     score 4.80000019073486
     seg FFLLFLFSSCDVP/VP
<400> 425
ccgaattatt ttagtgttac ttatctttga ataaaatgta tttttcttgg atcaattagt
                                                                  60
tgcagcacgt tcttaggaat ggaatagaga agcatcctaa gccagaagga ttttttttt
                                                                 120
tctagatcac agtgaagctt taatatggkk ggatatttgt cccagcccaa atcccatgct
                                                                 180
gaattgaaac ccctagtgct ggaggtgggg cctggtggaa ggtgtttgga tcatgaggac
                                                                 240
acatetetga tgaatggeet ageteateet ettagtg atg atg agt gag tye tea
                                                                 295
                                      Met Met Ser Glu Xaa Ser
                                          -30
                                                                 343
caa gat ctg gtt gta aag tgt gcc cca cca csg cca ttc ttt ctc ttg
Gln Asp Leu Val Val Lys Cys Ala Pro Pro Xaa Pro Phe Phe Leu Leu
                   -20
                                      -15
ttc ctg ttt tct tca tgt gat gtg cct gtt ccc ctt cac ctt ctg caa
                                                                 391
Phe Leu Phe Ser Ser Cys Asp Val Pro Val Pro Leu His Leu Leu Gln
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1

PCT/IB99/00712 WO 99/53051

231	
tgg ctg caa agc ttc ctg agg cct agg g Trp Leu Gln Ser Phe Leu Arg Pro Arg 10 15	419
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ttc aga tgt gtc cgg ttt ctt cct tct ggc ggg Phe Arg Cys Val Arg Phe Leu Pro Ser Gly Gly -25 -20	
act tca gga gtg aag cca caa acc ttc gca gtg Thr Ser Gly Val Lys Pro Gln Thr Phe Ala Val -10 -5 1	
aaa ggt ggc atg ccc gga gtt gtt cat tcc tcc Lys Gly Gly Met Pro Gly Val Val His Ser Ser 10	
ttg cta act tca gga gcg aas tgc aga cct tc Leu Leu Thr Ser Gly Ala Xaa Cys Arg Pro 25 30	232
<210> 427 <211> 383 <212> DNA <213> Homo sapiens	
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<221> sig_peptide <222> 226315 <223> Von Heijne matrix score 4.80000019073486 seq CLFLNARLAGTLC/QL	
<400> 427 acagacatca getegggtea acegegggee tegageeega teaaacettt gaateeeaeg tetteeett gactteetgt cagegteteg geacagagt tegagaaata gegeagggae eteateaaag caaacegeaa aategettet geeggegegg	caccgttaga gaaaagtgga 120 tcttcaggga gagcgttttc 180
cgt cgt gag gga cac cct ctg ttc cct aac gtc Arg Arg Glu Gly His Pro Leu Phe Pro Asn Val -25	ecc ege tgc tta ttt 285
tta aac gct cgg ttg gcg gga acc ctg tgc cag Leu Asn Ala Arg Leu Ala Gly Thr Leu Cys Gln -10 -5 1	

381

232

ttt ggc cgc cta gga aac acc gag agt cac cta cat ggg ctg gct ggg
Phe Gly Arg Leu Gly Asn Thr Glu Ser His Leu His Gly Leu Ala Gly

10 15 20

gg 383

<210> 428

<211> 132

<212> DNA

<213> Homo sapiens

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<221> CDS

<222> 32..130

<221> sig_peptide

<222> 32..124

<223> Von Heijne matrix
 score 4.80000019073486
 seq LLCPLTCPHHSLS/TV

<400> 428

ttcaacaaat gagtcatagt gttttcgtat t atg tat ttt gat atc cag att 52

Met Tyr Phe Asp Ile Gln Ile

-30

-25

gtc tca gat gtg gtc agc ggg att ccc ttc aaa ctt ctg tgc cct tta 100
Val Ser Asp Val Val Ser Gly Ile Pro Phe Lys Leu Leu Cys Pro Leu
-20 -15 -10

aca tgt ccc cat cat tct ctg agc acc gtg gg

Thr Cys Pro His His Ser Leu Ser Thr Val

-5

<210> 429

<211> 165

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 25..165

<221> sig_peptide

<222> 25..117

<223> Von Heijne matrix
 score 4.80000019073486
 seq FSPFLPSLPLLEA/ER

15

<400> 429

caaactgttg aaaagttaac tott atg tta ttt ata ttt tca gac ata gat 51 Met Leu Phe Ile Phe Ser Asp Ile Asp

-30 -25

tgg aag atg gac tta tgc ttt ttc tct ttc tct cct ttc ctt ccc tcc 99

Trp Lys Met Asp Leu Cys Phe Phe Ser Phe Ser Pro Phe Leu Pro Ser

-20 -15 -10

ctt cct ttg ttg gag gct gaa aga atg agg gtc agt gat caa ctt cag Leu Pro Leu Leu Glu Ala Glu Arg Met Arg Val Ser Asp Gln Leu Gln

tat acc act gga kac ggg
Tyr Thr Thr Gly Xaa Gly

<210> 430

<211> 236

<212> DNA

233

<213> Homo sapiens

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<222> 52..234
<221> sig peptide
<222> 52..159
<223> Von Heijne matrix
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<400> 430
gccgacgtgt tcttccggtg gcggasggcg gattagcctt cgcggggcaa a atg gag
                                                                       57
                                                              -35
ctc gag gcc atg agc aga tat acc agc cca gtg aac cca gct gtc ttc
                                                                      105
Leu Glu Ala Met Ser Arg Tyr Thr Ser Pro Val Asn Pro Ala Val Phe
                                    -25
ccc cat ctg acc gtg gtg ctt ttg gcc att ggc atg ttc ttc acc gcc
                                                                      153
Pro His Leu Thr Val Val Leu Leu Ala Ile Gly Met Phe Phe Thr Ala
            -15
                                -10
tgg ttc ttc gtt tac gag gtc acc tct acc aag tac act cgt gat atc
                                                                      201
Trp Phe Phe Val Tyr Glu Val Thr Ser Thr Lys Tyr Thr Arg Asp Ile
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tat aaa gag ctc ctc atc tcc tta gtg gcc cga gg
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Tyr Lys Glu Leu Leu Ile Ser Leu Val Ala Arg
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                                                                      120
attcaagaag atttctcctc ctaaacgaca tttatctgaa gtctattgcc tcttgattgc
                                                                      180
tggaaaagad tcttaaaatc atttcaaaag taacttataa acaaacttat taaaagtg
                                                                      238
atg aaa gga gca ttg aaa tta att agc act aat ttt tca ctg tgc caa
                                                                      286
Met Lys Gly Ala Leu Lys Leu Ile Ser Thr Asn Phe Ser Leu Cys Gln
        -15
                            -10
agt gtg cag tgt cct tca gag gaa aca ata aca gat ctg gtg agt gtg
                                                                      334
Ser Val Gln Cys Pro Ser Glu Glu Thr Ile Thr Asp Leu Val Ser Val
cca tgc cag tng gga ctg gg
                                                                      354
Pro Cys Gln Xaa Gly Leu
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-30

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accepttgatg ggactgagaa accagagtta aaacetettt ggagettetg aggacteage
                                                                      120
tggaaccaac gggcacagtt ggcaacacca tc atg aca tca caa cct gtt ccc
                                                                      173
                                    Met Thr Ser Gln Pro Val Pro
                                                     -65
aat gag acc atc ata gtg ctc cca tca aat gtc atc aac ttc tcc caa
                                                                      221
Asn Glu Thr Ile Ile Val Leu Pro Ser Asn Val Ile Asn Phe Ser Gln
                            -55
qca qaq aaa ccc qaa ccc acc aac caq qqq caq qat aqc ctq aaq aaa
                                                                      269
Ala Glu Lys Pro Glu Pro Thr Asn Gln Gly Gln Asp Ser Leu Lys Lys
    -45
                        -40
                                             -35
cat cta cac gca gaa atc aaa gtt att ggg act atc cag atc ttg tgt
                                                                      317
His Leu His Ala Glu Ile Lys Val Ile Gly Thr Ile Gln Ile Leu Cys
                    -25
                                        -20
ggc atg atg gta ttg agc ttg ggg atc att ttg gca tct gct tcc ttc
                                                                      365
Gly Met Met Val Leu Ser Leu Gly Ile Ile Leu Ala Ser Ala Ser Phe
                -10
tct cca aat ttt acc caa gtg act tct aca ctg ttg aac tct gct tac
                                                                      413
Ser Pro Asn Phe Thr Gln Val Thr Ser Thr Leu Leu Asn Ser Ala Tyr
                            10
cca ttc ata gga ccc ggg
                                                                      431
Pro Phe Ile Gly Pro Gly
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                                                                       54
                                        Met Val Asp Glu Cys Leu
                                        -40
aca gag cct gtg tgg gga agc aaa agg caa ggg tgt agt tca cag gca
                                                                      102
Thr Glu Pro Val Trp Gly Ser Lys Arg Gln Gly Cys Ser Ser Gln Ala
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-25

W 0 7 / 133031	235	1 C1/11/05/1007
gaa gcg agc tgt gac att		tgt ggc tcc tca 150
Glu Ala Ser Cys Asp Ile -15		
cag gcg gcc att gat tgt Gln Ala Ala Ile Asp Cys 1		
gtg Val 15		201
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ttc tac ctc acg gtc aag Phe Tyr Leu Thr Val Lys -50 -45	aga gcg aac tgc agc ctg Arg Ala Asn Cys Ser Leu -40	
gcc agc ggt ccg gcc aag Ala Ser Gly Pro Ala Lys		

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-25
                -30
aaa ccc ctt tcc cga gtc acg tcg cta gca aac ctc atc ccg ccc gtg
                                                                      316
Lys Pro Leu Ser Arg Val Thr Ser Leu Ala Asn Leu Ile Pro Pro Val
          -15
                               -10
aag gcc acg cca tta aag cgc ttc agt caa acc ctg cag cgc tcc att
                                                                      364
Lys Ala Thr Pro Leu Lys Arg Phe Ser Gln Thr Leu Gln Arg Ser Ile
                                            10
age tte ege agt gag age gee t
                                                                      386
Ser Phe Arg Ser Glu Ser Ala
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gcgagcatcc tggccagaac aagccaagga gccaagacga gagggacaca cggacaaaca
                                                                      120
acagacagaa gacgtactgg ccgctggact ccgctgcctc ccccatctcc ccgccatctg
                                                                      180
cgcccggagg atg agc cca gcc ttc agg gcc atg gat gtg gag ccc cgc
                                                                      229
           Met Ser Pro Ala Phe Arg Ala Met Asp Val Glu Pro Arg
                       -25
                                           -20
gcc aaa ggc gtc ctt ctg gag ccc ttt gtc cac cag gtc ggg ggg cac
                                                                      277
Ala Lys Gly Val Leu Leu Glu Pro Phe Val His Gln Val Gly Gly His
-15
                    -10
                                        -5
tea tgc gtg ctc cgc ttc aat gag aca acc ctg tgc aag ccc ctg gtc
                                                                      325
Ser Cys Val Leu Arg Phe Asn Glu Thr Thr Leu Cys Lys Pro Leu Val
                                10
                                                                      373
cca agg gaa cat cag tto tac gag acc ctc cct gct gag atg cgc aaa
Pro Arg Glu His Gln Phe Tyr Glu Thr Leu Pro Ala Glu Met Arg Lys
                            2.5
                                                30
        20
ttc act ccc cag tac aaa gga caa agc caa agg ccc ctt gtt agc tgg
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Phe Thr Pro Gln Tyr Lys Gly Gln Ser Gln Arg Pro Leu Val Ser Trp
                       40
                                            45
cca tcc ctg ccc cat ttt ttc ccc tgg tcc ttt ccc ctg tgg cca cag
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Pro Ser Leu Pro His Phe Phe Pro Trp Ser Phe Pro Leu Trp Pro Gln
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gga
Gly
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S	core	4.69	9999	98092	26514	4									
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agaacaa															60
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aactcct															180
tctgtat	atc 9	ggac	ccaw	gg co	cctg	gtgg	c ato	g g g(t tca	a cga	a gga	a gat	t cc	ctg	234
								-	/ Se	r Arg	g Gly	/ Ası	o Pro	o Leu	
							-4	5				-4()		
atc tgt															282
Ile Cys	Gly	Leu	Gln	Arg	Ser	Val	Gly	Glu	Val	Trp	Phe	Pro	Gly	\mathtt{Trp}	
	-35					-30					-25				
ggt cac	aca	atc	act	cac	tgc	ttc	cct	tgg	ctg	gag	gtg	9 99	ctt	ttt	330
Gly His	Thr	Ile	Thr	His	Cys	Phe	Pro	Trp	Leu	Glu	Val	Gly	Leu	Phe	
-20					-15					-10					
ttt tgg															378
Phe Trp	Leu	His	Ala	Ala	Pro	Gly	Arg	Ala	Ile	Ala	Leu	Pro	His	Phe	
-5				1				5					10		
tct tca															426
Ser Ser	Phe		Val	Gly	Gln	Xaa		His	Leu	Val	Ser		Leu	Xaa	
		15					20					25			
gam ctg	_														447
Xaa Leu	_	Ile	Ser	Val	Glu										
	30									·					
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.221			. .												
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<222> 1															
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	core eg El					ŧ									
S	ed F	امليلال	LPKG	LCQV/	CP										
-221 - m	100	Foots	120												
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(223) 11	=a, ç	3, C	Or (_											
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agaaaag		2000	2011	an a	react			acce	atcc	aaat	aaa	oct a	annan	ateact	60
ccattta			_												120
gcaccac															178
guacuau	ישש ו	guu	LCCW!	LC 9	Jergi	بمدر	, Ac.	ـ د د د د	,	3.3	Juday	י פייינ	geac	Met	1,0
cac ctc	cta	caa	as a	gag	ctc	cta	ctc	cta	cta	ccc	cat	aaa	cta		226
His Leu															220
ncu	Leu	-15	<u> U</u> LU	CIU	Leu	Lu	-10	u	Lou	.10	9	-5		J, J	
caa gtg	tar		caa	cta	tat	cta		agg	ama	qtt	gga		cta	caq	274
caa geg Cln Val															

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mtg cnn nky cct gat gtg gga aca gct ctt ctc cca gat gtt aat aga
                                                                      322
Xaa Xaa Xaa Pro Asp Val Gly Thr Ala Leu Leu Pro Asp Val Asn Arg
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                                        25
                                                                      340
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Thr Ser Cys Thr Thr Trp
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qaacqqacaq aaqatcagga acaaqttgag ttcattgtgt ggagatggca rraagatgga
                                                                      120
gattggtgag ctgagtggag aagtgccata gagcggtgtt ttgccagagt gtctgcggat
                                                                      180
tgctcatacc tgggaaggat tctttgtatg gttcccttag gctgagggag ggtatcagct
                                                                      240
                                                                      297
ttacagacct tgtgggatta caaaagggcc accacact cttcaaccaa t atg tgt
                                                         Met Cys
cta tct tgc att caa ggc tca ttc ttt gtt gaa att ttg cag ttg gtc
                                                                      345
Leu Ser Cys Ile Gln Gly Ser Phe Phe Val Glu Ile Leu Gln Leu Val
                        -20
act agg cta ttg tta tct cca tct caa agt aca cag aca cac aca cac
                                                                      393
Thr Arg Leu Leu Ser Pro Ser Gln Ser Thr Gln Thr His Thr His
-10
                    -5
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                                                                      409
aca cac aca cac aca a
Thr His Thr His Thr
            10
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tctgttcttt tataggaaga aaaaacatag ttattttct tttatgatac aaaggtatgc
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WO 99/35031	PC 1/1B99/00/
240	
agacttgata ttatatgggg at atg acc att ttg agg gaa atg tnn nca Met Thr Ile Leu Arg Glu Met Xaa Xaa	tca 232
-30 -25	
ctt tat gta ctt gaa gct aag gat act gct atc tta ttg ctt gtt t Leu Tyr Val Leu Glu Ala Lys Asp Thr Ala Ile Leu Leu Leu Val X -20 -15 -10	
gtg agc gat aag aat gaa cag cag ctt ggg agg ggc gtg g Val Ser Asp Lys Asn Glu Gln Gln Leu Gly Arg Gly Val -5 1 5	320
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tcc tgt ggg ttg cct gtt aag act ttg cca ttt atc tgt tgc aat c Ser Cys Gly Leu Pro Val Lys Thr Leu Pro Phe Ile Cys Cys Asn L -20 -15 -10	tt 164
tat ttc ttg ctg ttt tgt agg agt tct ttt tta tat ttt gga tat g Tyr Phe Leu Leu Phe Cys Arg Ser Ser Phe Leu Tyr Phe Gly Tyr A	
ccc att aat act tac atg tat tac aat gtt ttc tcc cac tcg gg Pro Ile Asn Thr Tyr Met Tyr Tyr Asn Val Phe Ser His Ser 10 15 20	256
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241	
agg ggt ctg tgc ccc gcc cat ccc ggg gcc cct cct ttg ccc cgc ccc Arg Gly Leu Cys Pro Ala His Pro Gly Ala Pro Pro Leu Pro Arg Pro -40 -35 -30 -25	148
ccg gac cgc ctt ccc cat tca ttc tct cct acg ggg tgt ctc ctg hgc Pro Asp Arg Leu Pro His Ser Phe Ser Pro Thr Gly Cys Leu Leu Xaa -20 -15 -10	196
ccc ctt ctg gtc tcg tgt ttg ggg tct ctg ctt ccg gtc acc caa acc Pro Leu Leu Val Ser Cys Leu Gly Ser Leu Leu Pro Val Thr Gln Thr	244
ctg ggg tcc ttc agt gct ggt ccc tgc ttc agg acc ctc a Leu Gly Ser Phe Ser Ala Gly Pro Cys Phe Arg Thr Leu 10 15 20	284
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tgt cca ctt agc caa ttc cta cct att ctt tma agc ctc agt tcc agt Cys Pro Leu Ser Gln Phe Leu Pro Ile Leu Xaa Ser Leu Ser Ser -20 -15 -10	162
gtc ccc tcg agg gca ggc agt gct ttc cca tct gcc cta ggt cca ctc Val Pro Ser Arg Ala Gly Ser Ala Phe Pro Ser Ala Leu Gly Pro Leu -5 1 5 10	210
tac cag cct cta ctt ggg ccc cca gca tgg Tyr Gln Pro Leu Gly Pro Pro Ala Trp 15 20	240
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	49
Met Arg Thr Gln Val Tyr Glu Gly Leu Cys Lys Asn Tyr Phe -40 -35	49

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Ser Leu Ala Val Leu Gln Arg Asp Arg Ile Lys Leu Leu Phe Phe Asp
                -25
                         -20
ata ctg gtt ttt ctt tct gtt tww ctt ctc ttt ctt cta ttt ctt gtg
                                                                  145
Ile Leu Val Phe Leu Ser Val Xaa Leu Leu Phe Leu Phe Leu Val
               -10
                                  - 5
gat atw atg gct aat adc aca aca agt tta ggg agg ccc
                                                                  184
Asp Ile Met Ala Asn Xaa Thr Thr Ser Leu Gly Arg Pro
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                                   Met Gly Gln Phe Thr Ala Ala
                                   -45
atg gtt ggg aga att tcc tgt ctg gga gtc tgg aaa ctg cca aga gtg
                                                                  102
Met Val Gly Arg Ile Ser Cys Leu Gly Val Trp Lys Leu Pro Arg Val
           -35
                              -30
gaa agc tgc agc cag cca gcg agg cct ctg ttg tca ctg gcc caa aca
                                                                  150
Glu Ser Cys Ser Gln Pro Ala Arg Pro Leu Leu Ser Leu Ala Gln Thr
                          -15
198
Thr Thr Lys Thr Thr Ala Thr Thr Thr Thr Thr Lys His Ala Thr
                      1
                                     5
tgt gca ctg gca tat aca aac acg ccc aca gaa cca vrc caa gcg gac
                                                                  246
Cys Ala Leu Ala Tyr Thr Asn Thr Pro Thr Glu Pro Xaa Gln Ala Asp
               15
                                  20
aag get tea agg aga get tet ggg ahv ete rwv nee geg geg agg eat
                                                                  294
Lys Ala Ser Arg Arg Ala Ser Gly Xaa Leu Xaa Xaa Ala Ala Arg His
                              35
atc cct tgg cat ggt gcc act gca gcc cag ctc cca gcc ccc ccg cca
                                                                  342
Ile Pro Trp His Gly Ala Thr Ala Ala Gln Leu Pro Ala Pro Pro Pro
tct gtc atc agc gct ctg
                                                                  360
Ser Val Ile Ser Ala Leu
   60
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gctgcagact gactgcctga tgtccgtgcc cactggggtt tttccctttt cagaaaggat
                                                                      180
ttctccctga tctctcccca caaactctgg ctttgctttt tcatttccta agagcaactc
                                                                      240
aat atg cat ttc ccc atc caa gct acc ttc sac tat tcc cct act gat
                                                                      288
    Met His Phe Pro Ile Gln Ala Thr Phe Xaa Tyr Ser Pro Thr Asp
                            -25
tet etc tgt cat tta tat ttk tea etc tte tet tee ttt etc tgc tet
                                                                      336
Ser Leu Cys His Leu Tyr Xaa Ser Leu Phe Ser Ser Phe Leu Cys Ser
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Thr Pro Ala Arg
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gggattccaa tccaagctct gggcca atg gct ttg cat atc cta gaa tgc gag
                                                                      113
                             Met Ala Leu His Ile Leu Glu Cys Glu
                                 -35
                                                                      161
agg aac gtt tgt ttt gta gca gtt aga cag cct gct cat gaa agc tgc
Arg Asn Val Cys Phe Val Ala Val Arg Gln Pro Ala His Glu Ser Cys
                            -20
ttt gtg ccc agc ctt gtg aca ggt gct tta caa caa tcc cag aca cag
                                                                      209
Phe Val Pro Ser Leu Val Thr Gly Ala Leu Gln Gln Ser Gln Thr Gln
                        -5
                                           1
                                                                      257
cac cca cct tgg gtt tgc cct cag gta cag ggc tcc tat cca tcc tgg
His Pro Pro Trp Val Cys Pro Gln Val Gln Gly Ser Tyr Pro Ser Trp
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Lys Asn Arg Gly
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cag gtg ttg ttt tgt aat cga ag

Gln Val Leu Phe Cys Asn Arg <210> 456 <211> 102 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 14..100 <221> sig peptide <222> 14..67 <223> Von Heijne matrix score 4.69999980926514 seq CIFLAVLSKISWA/VN <400> 456 ctaattgaaa agg atg tcc tat ttc cga tgt ata ttt ttg gca gtt ttg 49 Met Ser Tyr Phe Arg Cys Ile Phe Leu Ala Val Leu -15 -10 tca aaa atc agt tgg gct gta aat atg tgc agt ctt att tct ggg tcc 97 Ser Lys Ile Ser Trp Ala Val Asn Met Cys Ser Leu Ile Ser Gly Ser 5 ~5 1 tcg gg 102 Ser <210> 457 <211> 151 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 35..151 <221> sig_peptide <222> 35..136 <223> Von Heijne matrix score 4.59999990463257 seq LFLSISLITLYYS/SE <400> 457 tgagttaaat tagacaactg taagagaaaa attt atg ctt tgt ata atg ttt ggt 55 Met Leu Cys Ile Met Phe Gly -30 att gaa act aat gaa att acc aag atg aca atg tct ttt ctt ttg ttt 103 Ile Glu Thr Asn Glu Ile Thr Lys Met Thr Met Ser Phe Leu Leu Phe -25 -20 -15 cta agt atc agt ttg ata act tta tat tat tcc tca gaa gca tgt ggg 151 Leu Ser Ile Ser Leu Ile Thr Leu Tyr Tyr Ser Ser Glu Ala Cys Gly -10 - 5 <210> 458 <211> 285 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 16..285

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caa gtg cca aca tac ggc cct tac ggc cgc tgt gcc ccc atg aag agc

Gln Val Pro Thr Tyr Gly Pro Tyr Gly Arg Cys Ala Pro Met Lys Ser 60 atc tcc agc agc ctc aag gag 311 Ile Ser Ser Ser Leu Lys Glu 70 <210> 460 <211> 425 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 161..424 <221> sig_peptide <222> 161..418 <223> Von Heijne matrix score 4.59999990463257 seq AAAALCILILLXA/MY <400> 460 aggeogget gatgegeagg caatttatea tettgatete ecaetgagte agggagetet 60 cctgtcacca gtattgattt cagaggatgg actaaatttc ctaggatttc cattaagaat 120 taagaaaaaa gctctaagca cgcagggtag ccagacagac atg gat atg aga tgg 175 Met Asp Met Arg Trp -85 223 cac tgt gaa aac tcg cag acc aca gat gac atc ctt gtg gcc tca gca His Cys Glu Asn Ser Gln Thr Thr Asp Asp Ile Leu Val Ala Ser Ala gag tgt ccc agc gat gat gag gac att gac ccc tgt gag ccg agc tca 271 Glu Cys Pro Ser Asp Asp Glu Asp Ile Asp Pro Cys Glu Pro Ser Ser -60 -55 ggt ggg tta gcc aac cca acc cga gca ggc ggc aga gag ccg tat cca 319 Gly Gly Leu Ala Asn Pro Thr Arg Ala Gly Gly Arg Glu Pro Tyr Pro -45 -40 ggc tca gca gaa gtg atc cgg gag tcc agc acc acg ggt atg gtc 367 Gly Ser Ala Glu Val Ile Arg Glu Ser Ser Ser Thr Thr Gly Met Val -30 -25 gtt ggg ata gta gcc gcc gcc ctg tgc atc ctt atc ctc wat 415 Val Gly Ile Val Ala Ala Ala Leu Cys Ile Leu Ile Leu Leu Xaa -15 -10 -5 425 gcc atg tac a Ala Met Tyr 1 <210> 461 <211> 420 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 45..419 <221> sig_peptide <222> 45..104 <223> Von Heijne matrix score 4.59999990463257 seq PTLLTLCIGSVVS/SD

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	Met Ala Trp Thr -20	
cct ctc tgg ccc act ctc ctc act ct Pro Leu Trp Pro Thr Leu Leu Thr Le		104
tot gac ctg act cag gac cct gct gc Ser Asp Leu Thr Gln Asp Pro Ala Va	tg tct gtg gcc ttg gga cag aga	152
gtc agg atc aca tgc cag gga gac ag Val Arg Ile Thr Cys Gln Gly Asp As 20	ac ctc gaa gag tat ttt gca agc sn Leu Glu Glu Tyr Phe Ala Ser	200
tgg tac cga cag agg ccc gga cag gg Trp Tyr Arg Gln Arg Pro Gly Gln A	cc cct gtc ctt gtc atc tat ggt	248
aaa aac aac cgg ccc tca ggg att cc Lys Asn Asn Arg Pro Ser Gly Ile Pr 50 55		296
tca ggc aat aca gct tta ttg acc at Ser Gly Asn Thr Ala Leu Leu Thr I: 65 70		344
gab gct gac tat tac tgt agt kat co Xaa Ala Asp Tyr Tyr Cys Ser Xaa As 85		392
gtg ttc ggc ggg ggg acc agg ctg ac Val Phe Gly Gly Gly Thr Arg Leu Tl 100		420
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ttt cag att gyc cat gtc cag aaa ca Phe Gln Ile Xaa His Val Gln Lys Gl	aa cag tgt ctt ttc aaa aat gag	153
aaa gtg gtc gtg ggc tca tgc aac ag Lys Val Val Val Gly Ser Cys Asn An 20	rg Thr Ile Gln Asn Gln Gln Trp	201
atg tgg act gag gat gaa aag ctc ct Met Trp Thr Glu Asp Glu Lys Leu Le 35		249
ttg gcc at Leu Ala 50		257
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Met Cys Val Cys Ala Cys Ala Leu Cys Val Trp Leu Cys Val Lys Ser
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tgc agt att
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Cys Ser Ile
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                                                                       56
                                          Met Ile Ser Asp Val Gln
                                               -20
cac ctt ttc ata tac ttg tta gcc ttt tgt atg cct tcc ttg gag aaa
                                                                      104
His Leu Phe Ile Tyr Leu Leu Ala Phe Cys Met Pro Ser Leu Glu Lys
                    -10
tgt cta tac ggg tct ttg gcc cac ttt ttt ttt ttt tt
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Cys Leu Tyr Gly Ser Leu Ala His Phe Phe Phe,
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                                                                       120
aacttgagtg gctgcttttc tgggtggaaa agagcggtat cagacagggt gagcagtcgg
                                                                       180
ggaacggatg aacaaagact tgcaccgtgg ccctg atg cct ttg ttc cga gtt
                                                                       233
                                        Met Pro Leu Phe Arg Val
                                        -15
cta ttc agt tgw act tgt gcg ttg twa cag gac ttt aga atg cag ccc
                                                                       281
Leu Phe Ser Xaa Thr Cys Ala Leu Xaa Gln Asp Phe Arg Met Gln Pro
                - 5
                                     1
tgc ccc cca acc ccc aag g
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Cys Pro Pro Thr Pro Lys
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                                                                      120
atgcattctc agaaagatcc tatcc atg tgg tat gta gag atg tgg gtt tct
                                                                      172
                            Met Trp Tyr Val Glu Met Trp Val Ser
ttt ttt cta ctt ttt tat gtg ctt ctt ttt aga aac tta tac aca cac
                                                                      220
Phe Phe Leu Leu Phe Tyr Val Leu Leu Phe Arg Asn Leu Tyr Thr His
                    -10
                                        - 5
aca cac cac act ggg
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Thr His His Thr Gly
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-10 -5	
	01
Ala Pro Ile Glu Pro Leu Leu Gln Val Leu Arg His Asp Gln Gly	.VI
5 10 15	
-	20
His Ala Leu Gln Leu Xaa	20
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score 4.59999990463257 seq WTCVAPVYPACSG/RR	
·	
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PCT/IB99/00712

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Phe Gly Ile Gly Tyr Val Thr Leu Leu Gln Ile His Ser Ile Tyr Ser	0.2.2
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Ile Leu Thr Leu Asn Thr Val Phe Val Leu Ala Val Lys Leu Lys Trp	
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                                      Met Leu Ser Cys Pro Trp
ttt ccc cta tcc tgt tct ccc tcc ttg cct ctg agc atc cca gac tgc
                                                                     101
Phe Pro Leu Ser Cys Ser Pro Ser Leu Pro Leu Ser Ile Pro Asp Cys
                            -5
       -10
ctg cct gcc ttc ctc tgg ccg ctg ggg ata ccc tgg cct gat gga gag
                                                                     149
Leu Pro Ala Phe Leu Trp Pro Leu Gly Ile Pro Trp Pro Asp Gly Glu
                   10
ggt cta aga cct tcc cgt ctt ctc cgg aca cgg gaa aac att acc cct
                                                                     197
Gly Leu Arg Pro Ser Arg Leu Leu Arg Thr Arg Glu Asn Ile Thr Pro
                                   30
ctc tct tta ttc gct atg ctg agt ggc agg gag ggt gcc ccg ctc ctg
                                                                     245
Leu Ser Leu Phe Ala Met Leu Ser Gly Arg Glu Gly Ala Pro Leu Leu
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                                                    50
            40
                                                                     255
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Val Pro Leu
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                         Met Val Val Ser Phe Leu Ala Ser Ser
                                                                       82
tee ttg eeg geg gag ace eet aag caa ggg
Ser Leu Pro Ala Glu Thr Pro Lys Gln Gly
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cyc gcc tgg ctg cag ccc agg tat agg aag aat gcg tat ctt ttc atc Xaa Ala Trp Leu Gln Pro Arg Tyr Arg Lys Asn Ala Tyr Leu Phe Ile -100 -95 -90	104
tat tac tta atc cag ttc tgt ggc cas tct tgg ata ttt gca aat atg Tyr Tyr Leu Ile Gln Phe Cys Gly Xaa Ser Trp Ile Phe Ala Asn Met -85 -70	152
aca gtc aga ttc ttt tca ttt gga aaa gat tca atg gtt gac act ttt Thr Val Arg Phe Phe Ser Phe Gly Lys Asp Ser Met Val Asp Thr Phe -65 -60 -55	200
	248
	296
	344
	392
	440
	474
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	227
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PCT/IB99/00712 WO 99/53051

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                                                                      120
ggttgctagg gctgggggaa ctcagattgc ttcacctgtg gtatcagaca tcacaac
                                                                      177
atg ggg ctc acc aag cag tac cta cgc tat gtt gct agt gcg gtc ttt
                                                                      225
Met Gly Leu Thr Lys Gln Tyr Leu Arg Tyr Val Ala Ser Ala Val Phe
                    -15
                                        -10
ggc gtt atc ggc agc caa aaa ggt aat att gtc ttt gtg aca ctt cgt
                                                                      273
Gly Val Ile Gly Ser Gln Lys Gly Asn Ile Val Phe Val Thr Leu Arg
                1
ggt gag aaa gga cgt tat gtg gca gta cca gct tgt gaa cac gtt ttc
                                                                      321
Gly Glu Lys Gly Arg Tyr Val Ala Val Pro Ala Cys Glu His Val Phe
atc wgg gac tta agg aaa gga gag aag att ctt atc ctt cag ggg ctt
                                                                      369
Ile Xaa Asp Leu Arg Lys Gly Glu Lys Ile Leu Ile Leu Gln Gly Leu
    30
                        35
aaa caa gaa gtt act tgc tta tgc ccc tcc cca gat ggg cta cac tta
                                                                      417
Lys Gln Glu Val Thr Cys Leu Cys Pro Ser Pro Asp Gly Leu His Leu
                    50
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                                                                      430
gct gtt ggg tat g
Ala Val Gly Tyr
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tagctgaaag caggcagcca ggcagccgag acacttccca gcgattccag cctgggctcc
gcagaagcet egetgaatee cagecagetg gttetaacet tecagaateg caatecette
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tececacage cagecetege egageaagea geaggatgtt tgeagtgteg egeecaggge
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271

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272 gattgtaagg agaggcggtc ccggtgtcct cgggtcccag gtgattgtga agtgctgacc 180 aattgccact ggacatactt gaaacaaaat aggaaa atg gca gca aac tct tca Met Ala Ala Asn Ser Ser -60 gga caa ggt ttt caa aac aaa aat aga gtt gca atc ttg gca gaa ctg 282 Gly Gln Gly Phe Gln Asn Lys Asn Arg Val Ala Ile Leu Ala Glu Leu aca aag aga aaa gaa aac tac tta tgc aga acc agt ctt caa caa atc 330 Thr Lys Arg Lys Glu Asn Tyr Leu Cys Arg Thr Ser Leu Gln Gln Ile -35 -30 atc ctg gar cta ggt att gac act ata atg tgg gtt tnn tgt ntg ttt 378 Ile Leu Glu Leu Gly Ile Asp Thr Ile Met Trp Val Xaa Cys Xaa Phe -20 -15 tgt ttt gtt ttg ttt tgt ttt gag acg gag tct cgc cct gtc 420 Cys Phe Val Leu Phe Cys Phe Glu Thr Glu Ser Arg Pro Val <210> 505 <211> 457 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 43..456 <221> sig peptide <222> 43..147 <223> Von Heijne matrix score 4.40000009536743 seq PAPLLFLPPAAPG/GE <221> misc_feature <222> 416..417 <223> n=a, g, c or t <400> 505 54 gtagteggat agttggeggg tggttgagtg gaageggteg ee atg tee geg ggg Met Ser Ala Gly -35 age geg aca cat cet gga get gge ggg ege ege age aaa tgg gae caa 102 Ser Ala Thr His Pro Gly Ala Gly Gly Arg Arg Ser Lys Trp Asp Gln -25 cca gct cca gcc cca ctt ctc ttc ctc ccg cca gcg gcc cca ggt ggg 150 Pro Ala Pro Ala Pro Leu Leu Phe Leu Pro Pro Ala Ala Pro Gly Gly -10 -5 gag gtc acc agc agt ggg gga agt cct ggg gsc acc aca gct gct cct 198 Glu Val Thr Ser Ser Gly Gly Ser Pro Gly Xaa Thr Thr Ala Ala Pro tea gga gee ttg gat get get get gtg get gee aag att aat gee 246 Ser Gly Ala Leu Asp Ala Ala Ala Ala Val Ala Ala Lys Ile Asn Ala 25 30 atg ctc atg gca aaa ggg aag ctg aaa cca act cag rat gct tct gag 294 Met Leu Met Ala Lys Gly Lys Leu Lys Pro Thr Gln Xaa Ala Ser Glu 40 aag ott cag got oot ggo aaa ggo ota act ago aat aaa ago aag gat 342 Lys Leu Gln Ala Pro Gly Lys Gly Leu Thr Ser Asn Lys Ser Lys Asp

60

75

390

438

gac ctg gtg gta gct gaa gta gaa att aat gat gtg cct ctc aca tgt

Asp Leu Val Val Ala Glu Val Glu Ile Asn Asp Val Pro Leu Thr Cys

agg aac ttg ctg act cga gga cag ann caa gac gag atc agc cga ctt

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-15

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     Met Gly Trp His Ser His Ser Ser Gln Gly Val Xaa Ala Met Pro
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                                     -20
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                                         -15
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Ser Trp Thr Trp Pro Gln Thr Ala Gly Arg Val Val Ala Arg Xaa Pro
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tctacgcttg aaattgccag ggatggataa atctgaag atg aat gaa aaa aag aaa

236

Met Asn Glu Lys Lys Lys

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Lys Leu Val Leu Ser Ile Thr Gly Asn Thr Val Trp Ile Leu Thr Thr

278 -20 -15 tta gaa tca tta gct ggc agt gtc aam tct gaa caa gat ttg tca gct 452 Leu Glu Ser Leu Ala Gly Ser Val Xaa Ser Glu Gln Asp Leu Ser Ala -5 -10 1 455 tat Tyr <210> 516 <211> 360 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 196..360 <221> sig_peptide <222> 196..336 <223> Von Heijne matrix score 4.40000009536743 seq SFXXCLFLXLXXS/EM <221> misc feature <222> 330..332 <223> n=a, g, c or t <400> 516 aagagcgttg ggcagatata gtctgtagat atttttgaaa cgtctttggg tttgtcccat 60 ttggggtttg ctcagcttct tgaatctgta ggttttgggg atcccccamc ctgcaaattt 120 gqtqatattt ttqctcttat ttctkcaaqt qaacttqaaa tcccaccctg ttggttttct cettetaaga etetg atg acg tgt atg tta gee tgt agg tgt agt ete amg 231 Met Thr Cys Met Leu Ala Cys Arg Cys Ser Leu Xaa -45 -40 ggt ccc caa gat ttt cgt ttc tgc tct gtc ttt tct ctg ttg ctc aag 279 Gly Pro Gln Asp Phe Arg Phe Cys Ser Val Phe Ser Leu Leu Leu Lys -35 -30 -25 ttg ggt aat ttc tat ttt tct ttt wct dtc tgt ctw ttt ctw dta ctd 327 Leu Gly Asn Phe Tyr Phe Ser Phe Xaa Xaa Cys Leu Phe Leu Xaa Leu -15 360 wyn nnt tct gag atg gag tcm cac tct ttc agc Xaa Xaa Ser Glu Met Glu Ser His Ser Phe Ser <210> 517 <211> 453 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 113..451 <221> sig_peptide <222> 113..307 <223> Von Heijne matrix score 4.40000009536743 seq FIEAALLIHGSAC/VY attttcctgg gcgggaacag caaaatggcg ccagaactag tggcgggctg aggacgccgt 60 accectegga aggeageect geggteeett tgeegeeegt teeeteeegg ac atg gag 118

Met Glu

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acc aaq aac tgg gag gtg gac gtg gcg gcc cag ctq ggc gag tat ctg	214
Thr Lys Asn Trp Glu Val Asp Val Ala Ala Gln Leu Gly Glu Tyr Leu -45 -40 -35	
gag gag ctg gat cag atc tgc att tct ttt gac gaa ggc aag acc aca	262
Glu Glu Leu Asp Gln Ile Cys Ile Ser Phe Asp Glu Gly Lys Thr Thr -30 -25 -20	
atg aac ttc att gag gca gcg ttg ttg atc cat ggc tct gcc tgc gtc	310
Met Asn Phe Ile Glu Ala Ala Leu Leu Ile His Gly Ser Ala Cys Val -15 -5 1	
tac agt aag aag gtg gaa tac ctc tac tca ctc gtc tac cag gcc ctt	358
Tyr Ser Lys Lys Val Glu Tyr Leu Tyr Ser Leu Val Tyr Gln Ala Leu	
5 10 15	
gat ttc atc tct gga aag agg cgg gcc aag cag ctc tct tcg gtg cag	406
Asp Phe Ile Ser Gly Lys Arg Arg Ala Lys Gln Leu Ser Ser Val Gln 20 25 30	
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ctgctagctg ttagcacttg gcagacggag ttctcctcta gggtagttct aactttgggt	180
aata atg ttt gtc agc tac ctg ata tta aca ttg ctc cac gtt caa aca	229
Met Phe Val Ser Tyr Leu Ile Leu Thr Leu Leu His Val Gln Thr -15 -10 -5	
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ttc ttg ttt ttt tta ttc att ttt tta tta tac ttt aag ttc tgg ggt Phe Leu Phe Phe Leu Phe Ile Phe Leu Leu Tyr Phe Lys Phe Trp Gly -15 -10 -5	161
aca tgt gca gaa cgt gca ggt ttg tta cat agg tat act cgt gcc atg Thr Cys Ala Glu Arg Ala Gly Leu Leu His Arg Tyr Thr Arg Ala Met 1 5 10	209
gag gtt tgc tgc acc cat caa cca tca tct aca tta ggt att tct cct Glu Val Cys Cys Thr His Gln Pro Ser Ser Thr Leu Gly Ile Ser Pro 15 20 25	257
aat gct ctc ctt ccc cta Asn Ala Leu Leu Pro Leu 30 35	275
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Met Tyr Pro Arg	113
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gtg tgg gga tgt ttt caa tta ctg cat ttn ctt can bga aca aga acs	163
Val Trp Gly Cys Phe Gln Leu Leu His Xaa Leu Xaa Xaa Thr Arg Thr	
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Ala Lys Ala Leu Tyr Leu Ser Leu Asn Leu Tyr Phe Ala Asn Ser Leu
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-15
                                        -5
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Tyr Tyr Met Cys Val Cys Ser Tyr Ile Tyr Phe Tyr Leu Xaa Ile Tyr
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-50 gtt ccc tcg ggg ctg ggg aag agt gcg cgt ccc agg gga cgg cgg gcc 16	62
Val Pro Ser Gly Leu Gly Lys Ser Ala Arg Pro Arg Gly Arg Arg Ala -45 -40 -35	
cgg aaa cta ctg cct gca cct cgg gcc gcg ccc agg aca gct cca gac Arg Lys Leu Pro Ala Pro Arg Ala Ala Pro Arg Thr Ala Pro Asp -30 -25 -20	10
tac ccc ggg ccc ctc cgg tta acc tgg ctt gtg gcg gcc ggg ctg gaa Tyr Pro Gly Pro Leu Arg Leu Thr Trp Leu Val Ala Ala Gly Leu Glu -15 -10 -25	58
ggt cga gtt cac ttg gca gac acc agt tcg ggc cgg aaa acc tgg ccc Gly Arg Val His Leu Ala Asp Thr Ser Ser Gly Arg Lys Thr Trp Pro 1 5 10 15	06
	54
	66

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285	
10 15 20 ggc cca gtc tgt ggc tgt tgg gcc ttt agg ttc cac aat ccc cat ggc	352
Gly Pro Val Cys Gly Cys Trp Ala Phe Arg Phe His Asn Pro His Gly 25 30 35	
tta tta tcc agt cgg tcc cat cta tcc amc tgg ctc cac agt gct ggt Leu Leu Ser Ser Arg Ser His Leu Ser Xaa Trp Leu His Ser Ala Gly 40 45 50 55	400
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ggg tct ccc tct gtc gcc cag tct gga gtg cag tgg tgt gat ctc ggc Gly Ser Pro Ser Val Ala Gln Ser Gly Val Gln Trp Cys Asp Leu Gly	157
tta ctg cag cct ccg cct cct gga ttc aag cga ttc tct tgc ctc agc Leu Leu Gln Pro Pro Pro Pro Gly Phe Lys Arg Phe Ser Cys Leu Ser 10 15 20	205
ctc cta ggt agb drg gat tgc aga cgt gcg cca ccc ggg Leu Leu Gly Xaa Xaa Asp Cys Arg Arg Ala Pro Pro Gly 25 30 35	244
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gtc atg ttt gtg tct gka aca rcg ttt ttc ttt kcg ctc ckc ttt ctg Met Phe Val Ser Xaa Thr Xaa Phe Phe Phe Xaa Leu Xaa Phe Leu -20 -15 -10	168
ggc atg ttc ctc tct ggc atg gtg gct caa att gat gct aac tgg aac Gly Met Phe Leu Ser Gly Met Val Ala Gln Ile Asp Ala Asn Trp Asn -5	216
ttc ctg gat ttt gcc tac cat ttt aca gta ttt gtc ttc tat ttt gga	264

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58

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aag tgc tgg gtt ctc agc tac atg tgg cag agt gca tct ctg ggt ttt
                                                                      106
Lys Cys Trp Val Leu Ser Tyr Met Trp Gln Ser Ala Ser Leu Gly Phe
-15
                    -10
agt aac agg att aaa tot mac ttg aga cot coa goa ggo
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Ser Asn Arg Ile Lys Ser Xaa Leu Arg Pro Pro Ala Gly
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gaccttgggc agaaccttca atg tct gtg ggg ctg tgt ttt ctt atc tgg caa
                                                                      113
                      Met Ser Val Gly Leu Cys Phe Leu Ile Trp Gln
                                      -65
atg gga att atg cts ttg cct cgg gaa tgt tgg aag gtc aaa gac agt
                                                                      161
Met Gly Ile Met Leu Pro Arg Glu Cys Trp Lys Val Lys Asp Ser
            -55
                                -50
aag aag tac aaa agc tgc aga gaa tca gta ctg cct gca caa gca tgt
                                                                      209
Lys Lys Tyr Lys Ser Cys Arg Glu Ser Val Leu Pro Ala Gln Ala Cys
       -40
                            -35
                                                -30
aca gga gag tee eet gte tta tet gga gte agg gtt etg ggg ate ege
                                                                      257
Thr Gly Glu Ser Pro Val Leu Ser Gly Val Arg Val Leu Gly Ile Arg
                        -20
ctc tcg tgc gtg tta tcc cat ctc caa gcc tgg gac tcc tgg gac aat
                                                                      305
Leu Ser Cys Val Leu Ser His Leu Gln Ala Trp Asp Ser Trp Asp Asn
                    - 5
                                        1
cag aag gtg tgc tac ctg ggt gca ccc tgc ttt ggg aaa agg ctg agt
                                                                      353
Gln Lys Val Cys Tyr Leu Gly Ala Pro Cys Phe Gly Lys Arg Leu Ser
            10
                                15
                                                                      384
cca acc acc tgg ctc act ttt tgg gtg gga c
Pro Thr Trp Leu Thr Phe Trp Val Gly
        25
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aaacaaatac actaaaa atg ttc gct ttc ctg gcc ggg tgc agt ggc tca
                                                                      110
                   Met Phe Ala Phe Leu Ala Gly Cys Ser Gly Ser
                                   -10
                                                                      158
tgc ctq tgg tcc cgg cac ttc ggg aga ctg cgg cgg gcg gct ccc ttg
Cys Leu Trp Ser Arg His Phe Gly Arg Leu Arg Arg Ala Ala Pro Leu
            1
age eca gag ttt gag ace gge etg ggt aae atg gtg gaa eee caa tgg g
                                                                      207
Ser Pro Glu Phe Glu Thr Gly Leu Gly Asn Met Val Glu Pro Gln Trp
                        20
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                                                                       60
cctttqtqcc tctqqctqct ccaacatcac agatgccatc ctgaatgctc taggtcagaa
                                                                      120
                                                                      180
ctgcccacgg cttaggtaaa catttcttgt ttagctcaaa aaaatcatag aacaaaagtt
tectteacce atatteette ettggaactt tggaatttta aggtaggeac tgeagaeget
                                                                      240
ttgaaatttt aaggtagtee ettttag atg eee ace tae tte ett ttt gta eet
                                                                      294
                              Met Pro Thr Tyr Phe Leu Phe Val Pro
                                       -15
                                                           -10
                                                                      342
cat ttg att tca tgt aat tgg tgt gaa cca agg ggt aac aat ccc caa
His Leu Ile Ser Cys Asn Trp Cys Glu Pro Arg Gly Asn Asn Pro Gln
            -5
                                                                      390
att cca cta ctt gct atc cat act aga aaa aag aat caa cat ttt att
Ile Pro Leu Leu Ala Ile His Thr Arg Lys Lys Asn Gln His Phe Ile
                        15
                                                                      394
act t
Thr
25
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ctctttgaac caaaatgtct ccaaaaacaa gattctaatt tatacttaat at	
gaageceaat cattaaagee acettteeag gaacagaagt gtttttgaca et	Met
ctt tgg acc agt ttc cag aat cct ctt cag gta gtg ctt ctc a	
Leu Trp Thr Ser Phe Gln Asn Pro Leu Gln Val Val Leu Leu T -25 -20 -15	hr Ser
gtt tcc ctt ttd aww wtg gbn ndc mta ggt tca gtc cga atc a	wk cta 335
Val Ser Leu Xaa Xaa Xaa Xaa Xaa Gly Ser Val Arg Ile X	
-10 -5 1 5	
tct cac tgg tca agc tca gcc ttc ttc ttc ctd att cwb nck k	yw hwt 383
Ser His Trp Ser Ser Ser Ala Phe Phe Phe Leu Ile Xaa Xaa X 10 15 20	aa Xaa
ctt tca cat gtg aca aaa caa atg cat ttg aa	415
Leu Ser His Val Thr Lys Gln Met His Leu 25 30	
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ttatt atg ctg act tgt ttg tgt ggt tgc ttt ata gtg tta ctt	
Met Leu Thr Cys Leu Cys Gly Cys Phe Ile Val Leu Leu -10 -5	vai Cys
gta ctt aaa tgt gtt ttt gta gtg gct agt aat ggc ctt ttc t	tt cct 158
Val Leu Lys Cys Val Phe Val Val Ala Ser Asn Gly Leu Phe P	he Pro
5 10 15	
tt	160
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tgtccctcgc ccactttttg atggggttgt ttgttttttt cttgtaaatt tg	_

291

ctc ttt agt tta att aga tcc cat ttg tca att ttg gct ttt gtt gcc Leu Phe Ser Leu Ile Arg Ser His Leu Ser Ile Leu Ala Phe Val Ala -20 -15 -10 -10 -5 att gct ttt ggt gtt ttg gac atg aag tcc ttg ccc acg cca ggg g 327 Ile Ala Phe Gly Val Leu Asp Met Lys Ser Leu Pro Thr Pro Gly 1 5 10 <pre> </pre> <pre> <pre> <pre> </pre> <pre> </pre> <pre> </pre> <pre> <pre> <pre> <pre> </pre> <pre> <pre> <pre> <pre> 281 Leu Phe Ser Leu Ile Arg Ser His Leu Ser Ile Leu Ala Phe Val Ala -5 att gct ttt ggt gtt ttg gac atg aag tcc ttg ccc acg cca ggg g 327 Ile Ala Phe Gly Val Leu Asp Met Lys Ser Leu Pro Thr Pro Gly 1</pre></pre></pre></pre></pre></pre></pre></pre></pre>
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Cttctgcact cacagccgaa ggaaagcagc aggttggggc ttcttgtggc caacttcaga gcctgtcacc aggaaaggta agc atg gga gga agg aag atg gcg aca gat gaa 113 Met Gly Gly Arg Lys Met Ala Thr Asp Glu -65 -60 gaa aat gtc tat ggt tta gaa gag aac gct cag tcc cgg cag gag tcc 161 Glu Asn Val Tyr Gly Leu Glu Glu Asn Ala Gln Ser Arg Gln Glu Ser -40 acg cgg agg ctc atc ctt gtt ggg aga aca ggg gcc ggg aag agc gcc 209 Thr Arg Arg Leu Ile Leu Val Gly Arg Thr Gly Ala Gly Lys Ser Ala -25 act ggg aca ac acc ctg ggc cag aga aca ggg gcc ggg aag agc gcc 209 Thr Gly Asn Ser Ile Leu Gly Gln Arg Thr Gly Ala Gly Lys Ser Ala -25 act ggg aca ac acc ctg ggc cag aga ccg ttc tcc tcc agg ctg ggg 257 Thr Gly Asn Ser Ile Leu Gly Gln Arg Arg Phe Phe Ser Arg Leu Gly -20 gcc acg tct gtg anc agg gcc tgc acc acg grh agc cgc agg tgg gac 305 Ala Thr Ser Val Xaa Arg Ala Cys Thr Thr Xaa Ser Arg Arg Trp Asp -5 aag tgc cac gtg gaa gtc gtr gnd ctm gga cat vwk can nmn ggg aag 353 Lys Cys His Val Glu Val Val Xaa Leu Gly His Xaa Xaa Xaa Gly Lys 15 cca aga cag acc acc gtg gcc gtg gag agg agg gcc acc gcg gcc acc gcg gag gcc cac acc gcg rh agc ccc acc gcg agg ccc acc gcg agg ccc acc gcg acc acc
Secretation
gaa aat gtc tat ggt tta gaa gaa aac gct cag tcc cgg cag gag tcc 161 Glu Asn Val Tyr Gly Leu Glu Asn Ala Gln Ser Arg Gln Glu Ser -40 acc cgg agg ctc atc ctt gtt ggg aca aggg gcc ggg aag agc 209 Thr Arg Arg Leu Ile Leu Val Gly Arg Thr Gly Ala Gly Lys Ser Ala -35 -35 -35 -30 -30 -25 Ala Cys Ala Cys Thr Thr Gly Ala Gly Lys Ser Ala Ala -25 -25 -25 -10 -10 -10 -10 -10 -10 -10
Glu Asn Val Tyr Gly Leu Glu Glu Asn Ala Gln Ser Arg Gln Glu Ser -55
acg cgg agg ctc atc ctt ggg agg aca ggg gcc ggg aag agc gcc 209 Thr Arg Arg Leu Ile Leu Val Gly Arg Thr Gly Ala Gly Lys Ser Ala -25 act ggg aac agc ctc ctg ggc cag aga cgg ttc ttc ttc ctc agg ctg 257 Thr Gly Arn Ser Ile Leu Gly Gln Arg Arg Phe Phe Phe Ser Arg Leu Gly 257 Thr Gly Arn Arg A
Act ggg aac agc atc ctg ggc cag aga cgg ttc ttc tcc agg ctg ggg 257
Thr Gly Asn Ser Ile Leu Gly Gln Arg Arg Phe Phe Ser Arg Leu Gly -20
Secondary Seco
Ala Thr Ser Val Xaa Arg Ala Cys Thr Thr Xaa Ser Arg Arg Trp Asp -5
aag tgc cac gtg gaa gtc gtr gnd ctm gga cat vwk can nmn ggg aag Lys Cys His Val Glu Val Val Xaa Leu Gly His Xaa Xaa Xaa Gly Lys 10
10 15 20 25 tgt cca aga cag atc ctg gct gtg agg aga gag gtc act gct a 396 Cys Pro Arg Gln Ile Leu Ala Val Arg Arg Glu Val Thr Ala
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                                                                      120
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                                                                      180
atggctattt ttaaaaataa aataatcatt aaatatttct gttcagtatt tcagtataca
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gtatactttt cacaatataa aaatagaagc ttaatactgg gcattcatac tttttaaaga
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gnatga atg aag aaa tcg gtt tcc tgc tgt agt tct cta tgg gta agt
                                                                      348
       Met Lys Lys Ser Val Ser Cys Cys Ser Ser Leu Trp Val Ser
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                               -10
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                                                                      120
gtgrgacttg gggccctttc gtgcctgatg ggaagctcct gcmaccccgg ggagcccctc
                                                                      180
cagactgtcc ttgcccacct ggctgcactg gcctctttat gccaacccag tgaggacagg
                                                                      240
ttctgaggga cctggacag atg ctg ctc cta gcc atg gct gga cga tgt
                                                                      292
                     Met Leu Leu Pro Leu Ala Met Ala Gly Arg Cys
                     -30
                                         -25
tat aca gcc aag cac agc acw gtg ctg ctc tca gga agc cca agg gct
                                                                      340
Tyr Thr Ala Lys His Ser Thr Val Leu Leu Ser Gly Ser Pro Arg Ala
                                                      · -5
                -15
                                    -10
gtg gtc agt gca gtg gtg atg gtg ggc aca ggg tgc
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PCT/IB99/00712 WO 99/53051

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                                                                       53
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                                                -15
get ttt etg etc tet gte eet etg ggg aaa gge tea gee ett aag gat
                                                                      101
Ala Phe Leu Leu Ser Val Pro Leu Gly Lys Gly Ser Ala Leu Lys Asp
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ccc gtg ct
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                                       -15
tca cta tgg ata gtc tgt tgc ctc cat cta gat tct ctt att tca rrr
                                                                       95
Ser Leu Trp Ile Val Cys Cys Leu His Leu Asp Ser Leu Ile Ser Xaa
                                    1
                -5
aaa tat cct ctc cat gca att agg aga tat tta tcg acg ctg aga aac
                                                                      143
Lys Tyr Pro Leu His Ala Ile Arg Arg Tyr Leu Ser Thr Leu Arg Asn
                            15
caa aga gcc gaa gaa cag gtt gca cgt ttt caa aaa ata cct aat ggt
                                                                      191
Gln Arg Ala Glu Glu Gln Val Ala Arg Phe Gln Lys Ile Pro Asn Gly
gaa aat gaq aca atg att cct gta ttg aca tca aaa aaa gca agt gaa
                                                                      239
Glu Asn Glu Thr Met Ile Pro Val Leu Thr Ser Lys Lys Ala Ser Glu
                   45
                                        50
tta cca gtc agt gaa gtt gca agc att ctc caa gct gat ctt cag aat
                                                                      287
Leu Pro Val Ser Glu Val Ala Ser Ile Leu Gln Ala Asp Leu Gln Asn
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ggt cta aaa caa tgt gaa g
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cacagtotgg gaagaaaggo gtaagg atg gwg aag otg arc	
Met Xaa Lys Leu Xaa	
80 - ag aag gga acc aag ccg cct tca gtt gag gat ggc t	tc cag acc gtc 221
Hu Lys Gly Thr Lys Pro Pro Ser Val Glu Asp Gly F	
-75 -70 -65	-60
ect etc atc act ecc ttg gag gtt aat cac tta cag o	
Pro Leu Ile Thr Pro Leu Glu Val Asn His Leu Gln I	
-55 -50	-45
gaa aag gtg att gtg aag aca aga acg gaa tat cag c	
Glu Lys Val Ile Val Lys Thr Arg Thr Glu Tyr Gln F	
-40 -35	-30
ac aaa ggg aag ttc cgg gtg cca aaa atc gct gaa t	
Asn Lys Gly Lys Phe Arg Val Pro Lys Ile Ala Glu F	
	15
ate ett gte age etg gee eta get tte ett geg tge a	
tle Leu Val Ser Leu Ala Leu Ala Phe Leu Ala Cys I	
-10 -5 1	5
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Val Val Tyr Lys Ala Phe Thr Tyr Asp His Ser Cys F	
10 15	20
ct atr agc acc ggg	476
Ser Xaa Ser Thr Gly 25	
010 551	
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Met Phe Xaa Ala Ala Gly Val	
-20 -15	-10
tte eta ttt tke tge ate tae tgg ggt caa tat gee a	
Leu Leu Phe Xaa Cys Ile Tyr Trp Gly Gln Tyr Ala T	_
-5 1	5
gge aac gag agt gtg aag atc ttg gcc aag ctg ctc t	
Gly Asn Glu Ser Val Lys Ile Leu Ala Lys Leu Leu F	
10 15 2	· ·

231

60 120

169

217

229

297 ttc ctc atc ttc ctg ctg atg gg Phe Leu Ile Phe Leu Leu Met <210> 552 <211> 229 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 125..229 <221> sig_peptide <222> 125..202 <223> Von Heijne matrix score 4.19999980926514 seq FLSFLSFFFFSFF/LF <400> 552 agtttcactc cgaaagtsct tcttacagag caactccaag gatgggctga aaagcacata gagaaaatgg aacagtgcga agttggaagg tccgtgcggg tggcagcgcc agtgtgggga tgag atg ctc aca gga cgg ttt tta ggc ggc tca caa ggg ttt ttt ctt Met Leu Thr Gly Arg Phe Leu Gly Gly Ser Gln Gly Phe Phe Leu -20 tet ttt ett tet tte ttt ttt tee ttt tte ett tte ett yet ttt Ser Phe Leu Ser Phe Phe Phe Phe Ser Phe Leu Phe Leu Xaa Phe -10 -5 1 ttt ttt ttt ttt Phe Phe Phe <210> 553 <211> 232 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 110..232 <221> sig_peptide <222> 110..193 <223> Von Heijne matrix score 4.19999980926514 seq FVFMSKLLLFSFS/FL <400> 553

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302 302 aaa ggc agc tac gtm nnn tat gaa cct aca gaa ggt gag ccc agt gcc Lys Gly Ser Tyr Val Xaa Tyr Glu Pro Thr Glu Gly Glu Pro Ser Ala 10 15 atc gtc cag atg gag adw nnc ttg gcc aag ggc agc gag 341 Ile Val Gln Met Glu Xaa Xaa Leu Ala Lys Gly Ser Glu 30 <210> 562 <211> 484 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 334..483 <221> sig_peptide <222> 334..387 <223> Von Heijne matrix score 4.19999980926514 seq LIYLVSSFLALNQ/AS <400> 562 60 qttaqttqqq caqqqctgaa gtgtatgtgg tgaggaaaag aggctcctac tgtagacagc cttgttctac agatcctccc agaaatctct gggccaggtg gaacccaggg tcagagaggg 120 180 atgggagaga ggtttaattt tccatgataa ataaaaatct ataaaataat aaacaagaga aaagagattg gaaacagcca ggttggagca gtgagtgagt aaggaaacct ggctgccctc 240 tccagattcc ccaggetete agagaagate ageagaaagt etgcaagass etaagaacea 300 tcagecetca getgeacete eteceeteca agg atg aca aag geg sgv ete ate 354 Met Thr Lys Ala Xaa Leu Ile -15 402 tat ttq qtc aqc aqc ttt ctt gcc cta aat cag gcc agc ctc atc agt Tyr Leu Val Ser Ser Phe Leu Ala Leu Asn Gln Ala Ser Leu Ile Ser -5 -10 cgc tgt gac ttg gcc cag gtg ctg cag ctg gag gac ttg gat ggg ttt 450 Arg Cys Asp Leu Ala Gln Val Leu Gln Leu Glu Asp Leu Asp Gly Phe 10 484 gag ggt tac tcc ctg agt gac tgg ctg tgc tgg c Glu Gly Tyr Ser Leu Ser Asp Trp Leu Cys Trp <210> 563 <211> 229 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 122..229 <221> sig_peptide <222> 122..190 <223> Von Heijne matrix score 4.19999980926514 seq QLILLGIFRGIRH/QI <400> 563 60 gaaaggcctc gaaggcagcg tcctactcga ccaccaaggc aagacaagcc acctckattt agacggctaa gagagaggga ggctgcttca aaatcaaatg aggtggtagc agtgcccaca 120 a atg gca cag tta ata atg tgg ctc aag aac cag tta ata ctc ttg ggg 169 Met Ala Gln Leu Ile Met Trp Leu Lys Asn Gln Leu Ile Leu Leu Gly -15 -20 ata ttt cgg gga ata aga cac cag att tat cta atc aga act ctt cag 217

303 Ile Phe Arg Gly Ile Arg His Gln Ile Tyr Leu Ile Arg Thr Leu Gln atc agg caa tgg 229 Ile Arg Gln Trp 10 <210> 564 <211> 352 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 80..352 <221> sig_peptide <222> 80..169 <223> Von Heijne matrix score 4.19999980926514 seq LAXTLSLTCSVSG/VS <400> 564 actttctgag agtcctggac ctcctgtgca agaacatgaa acatctgtgg ttcttccttc 60 tcctggtggc aggtcccag atg ggt cct gtc cca ggt gca gct gca gga gtm 112 Met Gly Pro Val Pro Gly Ala Ala Ala Gly Val -25 rgg ccc ayg amt ggc gaa ctt gcg grg acc ctg tcc ctc acc tgc agt 160 Xaa Pro Xaa Xaa Gly Glu Leu Ala Xaa Thr Leu Ser Leu Thr Cys Ser -15 -10 - 5 gtc tct ggt gtc tcc atc act agt tat tac tgg agc tgg atc cgc car 208 Val Ser Gly Val Ser Ile Thr Ser Tyr Tyr Trp Ser Trp Ile Arg Gln 1 256 gcc cca ggg aag ggg ccg gag tgg atc ggg cdk atc gat cat agc ggg Ala Pro Gly Lys Gly Pro Glu Trp Ile Gly Xaa Ile Asp His Ser Gly 304 gat acc gac tac aat ccc tcc ctc cag agt cga gtc acc ctc tca gtg Asp Thr Asp Tyr Asn Pro Ser Leu Gln Ser Arg Val Thr Leu Ser Val 40 30 35 352 gac acg tcg aag aac cag ttc tca ctg agg ttg ctt tct gtg agc gca Asp Thr Ser Lys Asn Gln Phe Ser Leu Arg Leu Leu Ser Val Ser Ala 55 50 <210> 565 <211> 201 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 85..201 <221> sig_peptide <222> 85..192 <223> Von Heijne matrix score 4.19999980926514 seq LPLFLCPLGMVET/SF <400> 565 60 agttctgcgc tgtgagccgg ggcacaaaga gccctctgca ctagcgccgc agaccgcgga 111 ccagttggag gcatctgtcc accc atg tgg ttc cag aca cgt tca tgt ggc Met Trp Phe Gln Thr Arg Ser Cys Gly -35 -30 159 cac cat gac ccc gtc ggc atc aca ggg gta acc aag gtg atc ctc cct

seq LSLPSFLCTCCQF/FP

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304
His His Asp Pro Val Gly Ile Thr Gly Val Thr Lys Val Ile Leu Pro
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                            -20
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Leu Phe Leu Cys Pro Leu Gly Met Val Glu Thr Ser Phe Gly
                         -5
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                                                                      113
                             Met Ser Tyr Val Val Thr Lys Thr Lys
                                             -105
geg att aat ggg aaa tac cat cgt ttc ttg ggt cgt cat ttc ccc cgc
                                                                      161
Ala Ile Asn Gly Lys Tyr His Arg Phe Leu Gly Arg His Phe Pro Arg
                    - 95
                                        -90
ttc tat gtc ctg tac aca atc ttc atg aaa gga ttg cag atg tta tgg
                                                                      209
Phe Tyr Val Leu Tyr Thr Ile Phe Met Lys Gly Leu Gln Met Leu Trp
                -80
                                    -75
gct gat gcc aaa aag gct aga aga ata aag aca aat atg tgg aag cac
                                                                      257
Ala Asp Ala Lys Lys Ala Arg Arg Ile Lys Thr Asn Met Trp Lys His
           -65
                                -60
                                                    -55
aat ata aag tit cat caa cit cca tac cgg gag atg gag cat tig aga
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Asn Ile Lys Phe His Gln Leu Pro Tyr Arg Glu Met Glu His Leu Arg
                            -45
cag ttc cgc caa gac gtc acc aag tgt ctt ttc cta ggt att att tcc
                                                                      353
Gln Phe Arg Gln Asp Val Thr Lys Cys Leu Phe Leu Gly Ile Ile Ser
                        -30
                                             -25
att cca cct ttt gcc aac tac ctg gtc ttc ttg cta atg tac ctg ttt
                                                                      401
Ile Pro Pro Phe Ala Asn Tyr Leu Val Phe Leu Leu Met Tyr Leu Phe
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                    -15
                                        -10
ccc agg caa cta ctg atc agg
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Pro Arg Gln Leu Leu Ile Arg
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ttc cca cat gat cca att agc tct cag tac agt tct cca caa ggg aaa Phe Pro His Asp Pro Ile Ser Ser Gln Tyr Ser Ser Pro Gln Gly Lys 1 5 10 15	152
cca tgt caa gta acc tac aag ttc ttg ttt att ttg ctt gga cac gtc Pro Cys Gln Val Thr Tyr Lys Phe Leu Phe Ile Leu Leu Gly His Val 20 25 30	200
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g atg cag ggg ggc aac tcc ggg gtc cgc aag cgc gaa gag gag ggc gac Met Gln Gly Gly Asn Ser Gly Val Arg Lys Arg Glu Glu Glu Gly Asp -75 -70 -65 ggg gct ggg gct gtg gct gcg ccg ccg gcc atc gac ttt ccc gcc gag Gly Ala Gly Ala Val Ala Ala Pro Pro Ala Ile Asp Phe Pro Ala Glu	49 97
g atg cag ggg ggc aac tcc ggg gtc cgc aag cgc gaa gag gag ggc gac Met Gln Gly Gly Asn Ser Gly Val Arg Lys Arg Glu Glu Glu Gly Asp -75 -70 -65 ggg gct ggg gct gtg gct gcg ccg ccg gcc atc gac ttt ccc gcc gag Gly Ala Gly Ala Val Ala Ala Pro Pro Ala Ile Asp Phe Pro Ala Glu -60 -55 -50 ggc ccg gac ccc gaa tat gac gaa tct gat gtt cca gca kaa atc cag Gly Pro Asp Pro Glu Tyr Asp Glu Ser Asp Val Pro Ala Xaa Ile Gln	
g atg cag ggg ggc aac tcc ggg gtc cgc aag cgc gaa gag gag ggc gac Met Gln Gly Gly Asn Ser Gly Val Arg Lys Arg Glu Glu Glu Gly Asp -75 -70 -65 ggg gct ggg gct gcg ccg ccg gcc atc gac ttt ccc gcc gag Gly Ala Gly Ala Val Ala Ala Pro Pro Ala Ile Asp Phe Pro Ala Glu -60 -55 -50 ggc ccg gac ccc gaa tat gac gaa tct gat gtt cca gca kaa atc cag Gly Pro Asp Pro Glu Tyr Asp Glu Ser Asp Val Pro Ala Xaa Ile Gln -45 -40 -35 gtg tta aaa gaa ccc cta caa cag cca acc ttc cct ttt gca gtt gca Val Leu Lys Glu Pro Leu Gln Gln Pro Thr Phe Pro Phe Ala Val Ala	97
g atg cag ggg ggc aac tcc ggg gtc cgc aag cgc gaa gag gag ggc gac Met Gln Gly Gly Asn Ser Gly Val Arg Lys Arg Glu Glu Glu Gly Asp -75 -70 -65 ggg gct ggg gct gtg gct gcg ccg ccg gcc atc gac ttt ccc gcc gag Gly Ala Gly Ala Val Ala Ala Pro Pro Ala Ile Asp Phe Pro Ala Glu -60 -55 -50 ggc ccg gac ccc gaa tat gac gaa tct gat gtt cca gca kaa atc cag Gly Pro Asp Pro Glu Tyr Asp Glu Ser Asp Val Pro Ala Xaa Ile Gln -45 -40 -35 gtg tta aaa gaa ccc cta caa cag cca acc ttc cct ttt gca gtt gca Val Leu Lys Glu Pro Leu Gln Gln Pro Thr Phe Pro Phe Ala Val Ala -30 -25 -20 aac caa ctc ttg ctg gtt tct ttg ctg gag cac ttg agc cac gtg cat Asn Gln Leu Leu Leu Val Ser Leu Leu Glu His Leu Ser His Val His	97 145
g atg cag ggg ggc aac tcc ggg gtc cgc aag cgc gaa gag gag ggc gac Met Gln Gly Gly Asn Ser Gly Val Arg Lys Arg Glu Glu Glu Gly Asp -75 -70 -65 ggg gct ggg gct gtg gct gcg ccg ccg gcc atc gac ttt ccc gcc gag Gly Ala Gly Ala Val Ala Ala Pro Pro Ala Ile Asp Phe Pro Ala Glu -60 -55 -50 ggc ccg gac ccc gaa tat gac gaa tct gat gtt cca gca kaa atc cag Gly Pro Asp Pro Glu Tyr Asp Glu Ser Asp Val Pro Ala Xaa Ile Gln -45 -40 -35 gtg tta aaa gaa ccc cta caa cag cca acc ttc cct ttt gca gtt gca Val Leu Lys Glu Pro Leu Gln Gln Pro Thr Phe Pro Phe Ala Val Ala -30 -25 aac caa ctc ttg ctg gtt tct ttg ctg gag cac ttg agc cac gtg cat Asn Gln Leu Leu Leu Val Ser Leu Leu Glu His Leu Ser His Val His	97 145 193
g atg cag ggg ggc aac tcc ggg gtc cgc aag cgc gaa gag gag ggc gac Met Gln Gly Gly Asn Ser Gly Val Arg Lys Arg Glu Glu Glu Gly Asp -75 -70 -65 ggg gct ggg gct gtg gct gcg ccg ccg gcc atc gac ttt ccc gcc gag Gly Ala Gly Ala Val Ala Ala Pro Pro Ala Ile Asp Phe Pro Ala Glu -60 -55 -50 ggc ccg gac ccc gaa tat gac gaa tct gat gtt cca gca kaa atc cag Gly Pro Asp Pro Glu Tyr Asp Glu Ser Asp Val Pro Ala Xaa Ile Gln -45 -40 -35 gtg tta aaa gaa ccc cta caa cag cca acc ttc cct ttt gca gtt gca Val Leu Lys Glu Pro Leu Gln Gln Pro Thr Phe Pro Phe Ala Val Ala -30 -25 aac caa ctc ttg ctg gtt tct ttg ctg gag cac ttg agc cac gtg cat Asn Gln Leu Leu Leu Val Ser Leu Leu Glu His Leu Ser His Val His -15 -10 -5 1 gaa cc	97 145 193 241
g atg cag ggg ggc aac tcc ggg gtc cgc aag cgc gaa gag gag ggc gac Met Gln Gly Gly Asn Ser Gly Val Arg Lys Arg Glu Glu Glu Gly Asp -75 -70 -65 ggg gct ggg gct gtg gct gcg ccg ccg ccg	97 145 193 241

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seq CFALCIILICVMS/CR

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307

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tcctgggrra cccagacaag tgcccagtgc agcaggccag cgttttgtgt aactgcgttc	180
tgaccetgeg ggagaactee caagagetag ceaggetggr ggeetteage egageetace	240
ggagcagcat nbcgagctgg tggggtcagg ccgct atg aca cgc agg agg act	293
Met Thr Arg Arg Thr	
-20 -15	
tet etg tgg tge tge age eet tet tee aga aca tee age tee etg tee	341
Ser Leu Trp Cys Cys Ser Pro Ser Ser Arg Thr Ser Ser Ser Leu Ser	
-10 -5 1	
tgg cgg atg ggc tcc cag ata cgt cct tct tt	373
Trp Arg Met Gly Ser Gln Ile Arg Pro Ser	
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ctatggettg tag atg gee tte tat etc tgg tgt ttt cat geg gte ttt	169
Met Ala Phe Tyr Leu Trp Cys Phe His Ala Val Phe	
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ttc act gtg tgt gtg tgt gtg cgg gg	195
Phe Thr Val Cys Val Arg	
-5 1	
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308	
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aga gag cac agg gtt ggg ggc aag gtc ata gat gaa cag cat ccc aag Arg Glu His Arg Val Gly Gly Lys Val Ile Asp Glu Gln His Pro Lys 5 10 15	322
gca gaa gaa tct ttc tta gta cag gag ggg Ala Glu Glu Ser Phe Leu Val Gln Glu Gly 20 25	352
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ctt cct tcc ctc cgg Leu Pro Ser Leu Pro Arg 1	121
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cgc ccc ttg cag ccc ttt tta gag cat ctc gcg ggc tct ggc atc acc Arg Pro Leu Gln Pro Phe Leu Glu His Leu Ala Gly Ser Gly Ile Thr	160

PCT/IB99/00712

WO 99/53051 309 -25 aag cgc aca gcc ccg ggc tgc gct ccc cta agg tgg gtc cct cag atc 208 Lys Arg Thr Ala Pro Gly Cys Ala Pro Leu Arg Trp Val Pro Gln Ile -10 egg gge tgt eca tta ace agg etg gee caa aga gge gea gae act ega 256 Arg Gly Cys Pro Leu Thr Arg Leu Ala Gln Arg Gly Ala Asp Thr Arg 5 10 acc cgg gaa aac tta ttt tat tct cgg ttc ccg ggg ttg cag ctg cca 304 Thr Arg Glu Asn Leu Phe Tyr Ser Arg Phe Pro Gly Leu Gln Leu Pro 20 25 gcg gct gak nac agt gcg tcc gct ttg tct ctc tgc act ccc cgc agc 352 Ala Ala Xaa Xaa Ser Ala Ser Ala Leu Ser Leu Cys Thr Pro Arg Ser 35 40 ccc cct ctc ccq ctt cct ctc ccq att aac tcc ccc ggq 391 Pro Pro Leu Pro Leu Pro Ile Asn Ser Pro Gly <210> 576 <211> 288 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 133..288 <221> sig peptide <222> 133..243 <223> Von Heijne matrix score 4.09999990463257 seq SISFLPFQASIFG/KT <400> 576 aaaggcacag cgcgggcgca ggcgcccaga ggcgacagga gacctcaggc ccagactcca 60 ctccccagct gtgaaaggac tgctggccag acccccaagc tagcccgcca ggcctccata 120 171 gagetgeeca ge atg get gea tee agt ace agt cat ett aaa aat aaa aca Met Ala Ala Ser Ser Thr Ser His Leu Lys Asn Lys Thr -35 219 aaa acc ttc ctt gcc ccc atg acc aac tgc cac tca att tcc ttt ctt Lys Thr Phe Leu Ala Pro Met Thr Asn Cys His Ser Ile Ser Phe Leu -15 cct ttc caa gca agt att ttt gga aag act cgt ctg cag tca ctg agg 267 Pro Phe Gln Ala Ser Ile Phe Gly Lys Thr Arg Leu Gln Ser Leu Arg -5 1 288 cct tcc cac cct tac ccc cac Pro Ser His Pro Tyr Pro His 10 <210> 577 <211> 264 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 134..262

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                                                                      120
aagtttccta gta atg ccc aag gat gct gac ctg gct ttc agt gct tca
                                                                      169
              Met Pro Lys Asp Ala Asp Leu Ala Phe Ser Ala Ser
                               -35
ttg ttt gaa aga gca gag tcc ctt tat act ctg att tca aaa ttt ktt
                                                                      217
Leu Phe Glu Arg Ala Glu Ser Leu Tyr Thr Leu Ile Ser Lys Phe Xaa
        -25
                            -20
                                                 -15
tct tgt dtk tgt gtg tct acc ttg gca tat act aaa gga agg ggg gg
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Ser Cys Xaa Cys Val Ser Thr Leu Ala Tyr Thr Lys Gly Arg Gly
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<222> 94
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ttcttaqttc caqttacttt attgtasytt tttnhttgty ytttactgtg tgtg atg
                                                                      117
ttt gtg aat aga acc tgt ttt aat tct tcc ttt cca atc tgg atg cct
                                                                      165
Phe Val Asn Arg Thr Cys Phe Asn Ser Ser Phe Pro Ile Trp Met Pro
       -25
                            -20
                                                -15
ttt ctt ttt ctt aca tta ttc cac tgc tta gga cgt cgg g
                                                                      205
Phe Leu Phe Leu Thr Leu Phe His Cys Leu Gly Arg Arg
    -10
                        -5
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                           Met Xaa Gly Ser Ser Arg Xaa Xaa Gly
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-35

-30

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Leu Gln Ile Thr Ala Ser Arg Thr Gly Lys Val Tyr Pro Ala Cys His

-25 -20 -15

- 5

ttt ctg skc gcc gtc agc gcc agt agc tcg cma gca tgt ctg tgg tac

147
Phe Leu Xaa Ala Val Ser Ala Ser Ser Ser Xaa Ala Cys Leu Trp Tyr

cgc cca atm gct cgc aga ccg gct ggc ccc ggg ggg tca ctc agt tcg Arg Pro Ile Ala Arg Arg Pro Ala Gly Pro Gly Gly Ser Leu Ser Ser

gca caa gta cat cca gca g 214

Ala Gln Val His Pro Ala

25

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 seq VTFWLLCRICTFG/FH

400> 580

tgtttgtgat cagtatccaa aggcaaa atg att ttg ttt gac cat tta cat tgt 54 Met Ile Leu Phe Asp His Leu His Cys

-25 -20

195

tca gca tca gga gtg act ttc tgg ttg ctt tgc agg atc tgt acg ttt

102
Ser Ala Ser Gly Val Thr Phe Trp Leu Leu Cys Arg Ile Cys Thr Phe

-15 -10 -5

ggt ttt cat ggt ttt tct aaa tac aca gtt tca cgt gga aca cag cag
Gly Phe His Gly Phe Ser Lys Tyr Thr Val Ser Arg Gly Thr Gln Gln
1 5 10 15

ggg gca gga avg tgv dgt gga tta cac cag aac tgg gaa cag tgg agg 198
Gly Ala Gly Xaa Xaa Xaa Gly Leu His Gln Asn Trp Glu Gln Trp Arg

20 25 30 ggg ctt gtt ggg aag tct agt tct gcc gca gtt gtt ttc tgc ctt acs 246

Gly Leu Val Gly Lys Ser Ser Ser Ala Ala Val Val Phe Cys Leu Thr
35 40 45

ttt gac ttg gtt acc agc ttt caa tta gca agt gca att gaa agt aca 294
Phe Asp Leu Val Thr Ser Phe Gln Leu Ala Ser Ala Ile Glu Ser Thr
50 55 60

cat ttc cat gct ggg cgc gat ggc tca cac ctg t 328

His Phe His Ala Gly Arg Asp Gly Ser His Leu

65 7

<210> 581

<211> 356

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 264..356

<221> sig peptide

<222> 264..350

<223> Von Heijne matrix

<221> sig_peptide <222> 8..76

<223> Von Heijne matrix

312 score 4.09999990463257 seq LLLFPASLRLLCV/HP <221> misc feature <222> 146 <223> n=a, g, c or t <400> 581 gtckcatttt gcctttgwaa tggaagtcac ttccaagtgt ctgttctcta ggttttcctt 60 tttttctctt ttagaaattg gacacttcaa taaaatttgt aattacgtcc atctgwgtga 120 htattwgmat tyratgksca tatctnstgc cagattgtaa actccgcgag tgcacatatc 180 agatecatta tggtteteat catateceta geteetageg cagtgegggg caegtataag 240 tgctcgaaag ctcccacgtg gtg atg gag cta agc ttg ccc cct tcc atg tgt 293 Met Glu Leu Ser Leu Pro Pro Ser Met Cys -25 gac tac eca amt the tgt etc etc etc the eeg ged tet etc aga etc 341 Asp Tyr Pro Xaa Phe Cys Leu Leu Phe Pro Ala Ser Leu Arg Leu -10 -15 356 ctc tgt gtg cat ccc Leu Cys Val His Pro 1 <210> 582 <211> 239 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 159..239 <221> sig_peptide <222> 159..218 <223> Von Heijne matrix score 4.09999990463257 seg TVGCAGLAGSCRG/IS <400> 582 agttcctggg ctcccgcgga gsatgagacg ttgtgaatta gatgtgagaa gagggacgct 60 tggtctgcga ccaccaagac cccacaggat cgatgcaccc acccctgctg atgaccatga 120 ccatctaaar gggaaacatc atttgagggg ccctactc atg gat cag aag ccc ctc 176 Met Asp Gln Lys Pro Leu -20 ttc act gtg ggg tgt gct ggg ttg gcg ggc agt tgc cgt gga atc agt 224 Phe Thr Val Gly Cys Ala Gly Leu Ala Gly Ser Cys Arg Gly Ile Ser -5 -10 239 ttc ctc agg acc cgc Phe Leu Arg Thr Arg 5 <210> 583 <211> 144 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 8..142

score 4.09999990463257 seq FILLLLIQDLTMS/PT

<222> 242..388

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aaatgtttga ggtgagggat atcccaatta ccctgatttg gttattattc attgtataca
                                                                   120
gttttcaaaa tatcacatgt acccccaaaa tatgtaaaac tgttatatac aaataaataa
                                                                   180
caaaactaaa aataacagct gtgcaaacat ttttaaaaagg cttgctttaa atgggtttca
                                                                   240
c atg aaa gta gga aag gac tot otg gag tot tta coa tot tta tgt gag
                                                                   289
 Met Lys Val Gly Lys Asp Ser Leu Glu Ser Leu Pro Ser Leu Cys Glu
                             -30
aaa cac att ggt ccc agt ggt ctc ttt acc ttt ctt agt cca tcc ttt
                                                                   337
Lys His Ile Gly Pro Ser Gly Leu Phe Thr Phe Leu Ser Pro Ser Phe
   -20
                       -15
                                           -10
cac tot gta cat out tot gaa oto aat gaa tta tac act att got goo
                                                                   385
His Ser Val His Leu Ser Glu Leu Asn Glu Leu Tyr Thr Ile Ala Ala
-5
                   1
                                                                   388
999
Gly
<210> 586
<211> 436
<212> DNA
<213> Homo sapiens
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<221> CDS
<222> 346..435
<221> sig peptide
<222> 346..396
<223> Von Heijne matrix
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     seq VLISASLLRASQL/KI
<221> misc feature
<222> 170
<223> n=a, g, c or t
<400> 586
                                                                    60
agagagatca caaccatcgt ctcaatgaag cagcagcaca cacagggatg tgtggtcgwc
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ccaagttcag gggagagagt ttaaaggcgg gatgatcata tgtgaagdhn tggcagcacc
                                                                   180
                                                                   240
aatatggcac tgtcaaagta aaagagaaat agatctgaac tggattttaa tgagaataat
agcaaatatt aacatttctt agatagtttg atatttattc tggaagtatc gctaccaaca
                                                                   300
tcaacatctg ggaaagcdag tgggcatcaa aatcctacct ggcta atg gaa agc aaa
                                                                   357
                                                 Met Glu Ser Lys
                                                                   405
gtt tta atc agt gca tca ctc cta cgg gcc tct caa tta aaa ata aaa
Val Leu Ile Ser Ala Ser Leu Leu Arg Ala Ser Gln Leu Lys Ile Lys
            -10
                               -5
                                                   1
                                                                   436
tgr aac aaa atg aca aac ttc tta att ttg t
Xaa Asn Lys Met Thr Asn Phe Leu Ile Leu
<210> 587
<211> 378
<212> DNA
<213> Homo sapiens
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315

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<222> 24..377
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                                                                       53
                          Met Ala Ala Ser Val Leu Asn Thr Val Leu
                                          -20
agg egg ett eet atg eta tet etc tee ega ggt tet eay vvg rbg tte
                                                                      101
Arg Arg Leu Pro Met Leu Ser Leu Phe Arg Gly Ser His Xaa Xaa Phe
                -10
agg ttc ccc tcc aga ctc ttt gca cca aag ctc cct ctg agg aag att
                                                                      149
Arg Phe Pro Ser Arg Leu Phe Ala Pro Lys Leu Pro Leu Arg Lys Ile
                            10
ctt tgt cct cag ttc cca ttt ctc ctt ata agg atg agc cct gga aat
                                                                      197
Leu Cys Pro Gln Phe Pro Phe Leu Leu Ile Arg Met Ser Pro Gly Asn
                        25
                                            30
atc tgg aat cag aag aat acc agg agc gat atg gtt ctc gcc ccg tct
                                                                      245
Ile Trp Asn Gln Lys Asn Thr Arg Ser Asp Met Val Leu Ala Pro Ser
                                        45
                    40
                                                                      293
ggg ctg act acc gcc gca acc aca agg gtg gtg tac ccc cac agc gga
Gly Leu Thr Thr Ala Ala Thr Thr Arg Val Val Tyr Pro His Ser Gly
                                    60
ctc gga aga cat gta ttc gtc gga ata aag ttg ttg gga atc cct gcc
                                                                      341
Leu Gly Arg His Val Phe Val Gly Ile Lys Leu Gly Ile Pro Ala
           70
                                75
cca tct gtc gag atc aca agt tgc atg ttg act tta g
                                                                      378
Pro Ser Val Glu Ile Thr Ser Cys Met Leu Thr Leu
<210> 588
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<221> sig peptide
<222> 185..238
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      score 4.09999990463257
      seq TLLTCLXLXGGEG/WK
<221> misc feature
<222> 218,224
<223> n=a, g, c or t
<400> 588
                                                                       60
aggaggcgca gttactgata tagccaaggt gggacactac tggagggagc tagaagggat
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cagccagcca tgcctccagt tcaggtactt ggcattgcta agctcagaac aggacttgcc
agtgtctaga tgaaaaagag gagagatctc aagagggata accaattggc tggcaaagta
                                                                      180
acaa atg aaa agt aac ctg act cta ttg acc tgc tta ncc ctg nat ggg
                                                                      229
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Met Lys Ser Asn Leu Thr Leu Leu Thr Cys Leu Xaa Leu Xaa Gly

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								31	6						
			-1	5				-10)				- 5		
ggg g															277
ttt to	ys Se	c ctt				cat					rcc				325
gga ci Gly Le	tc tg				gag					aaa					373
ata aa Ile Ly		_										a			413
<210><211><211><212><213>	210 DNA	sapi	ens												
<220> <221> <222>		.209													
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<221> <222> <223>	78,8	0,118		Ē											
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tct gg Ser G	_	_		_	Arg		ccc	tgg	_				- 3		210
<210><211><211><212><213>	178 DNA	sapi	ens												
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;	J 5			,,	J51	,	, ~g\						le I		

-15

317

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gaa atc ctt ctg ctt ctg atc acc atc atc tac tcc tac ttg gag tcg
                                                                      102
Glu Ile Leu Leu Leu Ile Thr Ile Ile Tyr Ser Tyr Leu Glu Ser
                                    -5
                -10
ttg gtg aag ttt ttc att cct cag agg aga aaa tct gtg gct ggg gag
                                                                      150
Leu Val Lys Phe Phe Ile Pro Gln Arg Arg Lys Ser Val Ala Gly Glu
                            10
att qtt ctc att act gga gct ggg cat g
                                                                      178
Ile Val Leu Ile Thr Gly Ala Gly His
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                                                                      120
gtaccgcgct tggcggcagc tggccccaga cttctgtctt ttcaagmkgc aagtraargc
toggggctgc rraattgcaa cottgcca atg gac ctg atc ggt ttt ggt tat
                                                                      172
                               Met Asp Leu Ile Gly Phe Gly Tyr
                                               -35
                                                                      220
gca gcc ctc gtg aca ttt gga agc att ttt gga tat aag cdg aga ggt
Ala Ala Leu Val Thr Phe Gly Ser Ile Phe Gly Tyr Lys Xaa Arg Gly
                        -25
                                             -20
                                                                      268
ggt gtt ccg tct ttg att gct ggt ctt ttt gtd gga tgt ttg gcc ggc
Gly Val Pro Ser Leu Ile Ala Gly Leu Phe Val Gly Cys Leu Ala Gly
-15
                    -10
                                        -5
tat nsa gct tac cgt gtc tcc aat gac aaa cga gat gta a
                                                                      308
Tyr Xaa Ala Tyr Arg Val Ser Asn Asp Lys Arg Asp Val
                                10
<210> 592
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<222> 16..219
<221> sig_peptide
<222> 16..72
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      seq XTFLAAXRRLVTG/QT
<400> 592
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acagttcatc cggaa atg gag ggg gtc gct ttv btc acc ttc ctc gct gcg

51

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	Met Glu Gly		aa Thr Phe Leu Ala -10	Ala
sgg cgg cgg tt Xaa Arg Arg Le	g gta acc ggt co u Val Thr Gly G	ag acc agc cco ln Thr Ser Pro	g aga ggg acc tgg o Arg Gly Thr Trp o	tgc 99 Cys
			get atg eee tge s Ala Met Pro Cys	
agt cac agg ag	c tgt aga gag g	ac ccc ggt aca	a tct gaa agc cgg (c Ser Glu Ser Arg (40	gaa 195
	g cgg gac cac g l Arg Asp His G	99		219
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	u Ile Gly Leu I		a gtt cca tgt ggc : r Val Pro Cys Gly '	
gga agc ctc at	a acc atg gca g	aa ggc agg gag	g gag caa gtc acg u Glu Gln Val Thr	
gjå aaa	j			215
<210> 594 <211> 161 <212> DNA <213> Homo sap	iens			
<220> <221> CDS <222> 89160				
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<400> 594 ctccatagtt tta ttcacattgg ctt	ccttctc caggatg	c atg cat tta	a attgtacagt atgta gga ttc att ctt t Gly Phe Ile Leu S	ct 112

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319
ttc cat ggt ttg ata gct aat ttc ttt ttt tgt ctg aat gca cca gcg g
                                                                      161
Phe His Gly Leu Ile Ala Asn Phe Phe Phe Cys Leu Asn Ala Pro Ala
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<210> 595
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actetteeta tageecagag ggegagaggg cetgtggeet gggggaagga ggaegaggtt
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                                                                      120
tccctgcaga tcttggggcc ggaggcagnt ccaaccettg gagcaggaag aaacgcaaag
ttgtcaagaa ccaagtcgag ctgcctcaga gccggcccgc agtagctgca gactccgccc
gcgacgtgtg cgcgcttctc tgggccagag cgagcctgtt ttgtgctcgg gttaagagat
                                                                      300
ttgtccbaqc tatacc atg ggc cgc act cgg gaa gct ggc tgc gtg gcc gct
                                                                      352
                  Met Gly Arg Thr Arg Glu Ala Gly Cys Val Ala Ala
                  -20
                                      -15
                                                                      396
ggt gtg gtt atc ggg gct ggt gct gct act gtg tat aca gac tg
Gly Val Val Ile Gly Ala Gly Ala Ala Thr Val Tyr Thr Asp
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                                                                      120
ttgcttgtgt tatctccttt tttgtttttt attctttta aagttatctc ttacaggaag
                                                                      180
gattcctttt ttcttaaaaa agtttttcaa ttctttttt ttttgag atg gag tct
                                                                      236
                                                     Met Glu Ser
cac tot gto gco cag gct agg atg cgg ysg caw aat oto ago toa otg
                                                                      284
His Ser Val Ala Gln Ala Arg Met Arg Xaa Xaa Asn Leu Ser Ser Leu
                                        -25
-35
                    -30
caa cct ctg ccg cct ggg ttc aag cca tts tcc tgc ctm agc ctc ctg
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320
Gln Pro Leu Pro Pro Gly Phe Lys Pro Xaa Ser Cys Leu Ser Leu Leu
                -15
                                    -10
agt aay tsa gat tac agg cat gca cca cca ttc ctg gct aat ttt kgw
                                                                      380
Ser Asn Xaa Asp Tyr Arg His Ala Pro Pro Phe Leu Ala Asn Phe Xaa
att ttt cat aga gat gga gtt tca cca
                                                                      407
Ile Phe His Arg Asp Gly Val Ser Pro
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                                                                      113
                                Met Phe His Gly Ile Pro Ala Thr
                                -55
                                                                      161
ccg ggc ata gga gcc cct ggg aac aag ccg gag ctg tat gag gta cga
Pro Gly Ile Gly Ala Pro Gly Asn Lys Pro Glu Leu Tyr Glu Val Arg
                            -40
                                                -35
                                                                      209
caa cat ggc aga gct gtt tgc ggt ggt gaa gac aat gca agc cct gga
Gln His Gly Arg Ala Val Cys Gly Glu Asp Asn Ala Ser Pro Gly
                        -25
                                            -20
gaa ggc cta cat caa gga ctg tgt ctc ccc cag cga gta cac tgc agc
                                                                      257
Glu Gly Leu His Gln Gly Leu Cys Leu Pro Gln Arg Val His Cys Ser
                                        -5
                   -10
                                                                      274
ctg ctc ccg gct cct gg
Leu Leu Pro Ala Pro
<210> 598
<211> 417
<212> DNA
<213> Homo sapiens
<220>
<221> CDS
<222> 343..417
<221> sig_peptide
<222> 343..408
<223> Von Heijne matrix
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agtgtaaaca ctggccatgt gaagattgag cctgttgatg gtttcttttg tatcatagga
tgccacgtca ccaactaggg aattctgccc aatcagttga gccaaatagt gctgtcctat
                                                                      180
tgtaaaattg tttaatctgt gtgcttgtgt gtgtgcttgt cagaatttgt gaatcataga
                                                                      240
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attgttttaa ctggaagaag acccccaaga tcatctgctt caaccccttc cttcctctct

300

321	
tttccagaga ggttgcactt tacttgagct gtgactagga tt atg cca cat tct .35 Met Pro His Ser -20	54
ttt gta agt tgt aac cta ttt ttg tct gtr ttg aat ttc ctt ttt ttg Phe Val Ser Cys Asn Leu Phe Leu Ser Val Leu Asn Phe Leu Phe Leu -15 -10 -5	02
	17
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-10 -5 1 <210> 600 <211> 311 <212> DNA <213> Homo sapiens	
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gegggeagaa aegggaetgg eagtgeecae aegtgtgegt teteecegte egecegaagg 12	60 20 77
tca gaa gca ctc ccc tcc ctt gct ggg gac cca gtg gct gtg gaa gcc Ser Glu Ala Leu Pro Ser Leu Ala Gly Asp Pro Val Ala Val Glu Ala	25
-20 -15 -10 ttg ctc cgg gcc gtg ttt ggg gtt gtt gtg gat gag gcc att cag aaa 27 Leu Leu Arg Ala Val Phe Gly Val Val Val Asp Glu Ala Ile Gln Lys	73

seq LFILXYFXXYTLS/SG

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322
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Gly Thr Ser Val Ser Gln Lys Val Cys Xaa Trp Lys
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<220>
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<222> 159..266
<223> Von Heijne matrix
      score 4
      seq LAELPVSSPLCHA/VL
<221> misc_feature
<222> 365..366
<223> n=a, g, c or t
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gaagtgatga tgatgacaat gatgatgatg atgatgtttt agcatcagat ttccatctcc
                                                                       120
                                                                      176
aggaacattc taattcaaat tcatatagtt ggtccttg atg cgg ttg gcg atg gtg
                                           Met Arg Leu Ala Met Val
                                               -35
caa ttg gtg ctc aac aat ttg aag act ttt tat ccc ttc gca gat cat
                                                                      224
Gln Leu Val Leu Asn Asn Leu Lys Thr Phe Tyr Pro Phe Ala Asp His
                                         -20
gat ctt gca gag ctt cca gtt agt tca cct ctt tgt cat gcg gtt cta
                                                                       272
Asp Leu Ala Glu Leu Pro Val Ser Ser Pro Leu Cys His Ala Val Leu
                                    - 5
                -10
aaa act ctt caa tgt tgg gaa caa gtt ctt ctc cga cga ctt gaa atc
                                                                      320
Lys Thr Leu Gln Cys Trp Glu Gln Val Leu Leu Arg Arg Leu Glu Ile
                            10
cat ggt ggg cca cct caa aat tat atc gca agt cat acc gcc gan nag
                                                                      368
His Gly Gly Pro Pro Gln Asn Tyr Ile Ala Ser His Thr Ala Xaa Xaa
                        25
agt ttg tct gca ggt cct gca att ctt cgc cac aaa gct tta ctg gaa
                                                                       416
Ser Leu Ser Ala Gly Pro Ala Ile Leu Arg His Lys Ala Leu Leu Glu
                    40
                                         45
cct a
                                                                      420
Pro
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323

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324

score 4
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Met Ala Ala Leu Gly Ser Pro Ser His Thr Phe Arg Gly Leu Leu	
-25 -20 -15	_
cgg gag ttg cgc tac ctg agc gcg gcc acc ggc cac cct atc gcg aca 15: Arg Glu Leu Arg Tyr Leu Ser Ala Ala Thr Gly His Pro Ile Ala Thr	>
-10 -5 1 5	
ccg cgg cct atc ggt acc ntt gtg aag gct ttc cgt gca cat cgg gtc 20	3
Pro Arg Pro Ile Gly Thr Xaa Val Lys Ala Phe Arg Ala His Arg Val 10 15 20	
acc agt gaa aag ttg tgc aga gcc caa cat gag ctt cat ttc caa gct 25	1
Thr Ser Glu Lys Leu Cys Arg Ala Gln His Glu Leu His Phe Gln Ala	
25 30 35	_
gcc acc tat ctc tgc ctc ctg cgt asa tcc gga aac atg tgg ccc tac 299 Ala Thr Tyr Leu Cys Leu Leu Arg Xaa Ser Gly Asn Met Trp Pro Tyr	9
40 45 50	
atc agg aat ttc atg gca agg gtg agc gct cgg tgg agg agt ctg ctg 34	7
Ile Arg Asn Phe Met Ala Arg Val Ser Ala Arg Trp Arg Ser Leu Leu	
55 60 65 gct tgg gtc tca agt tgc ccc atc agc ctg gag gga agg gct ggg 399	5
Ala Trp Trp Val Ser Ser Cys Pro Ile Ser Leu Glu Gly Arg Ala Gly	ر
70 75 80 85	
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Ser His Glu His Gly Glu Tyr Pro Trp Met 90 95	
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Met Ile Thr Asp Val Gln Leu Ala Ile Phe Ala Asn Met	_
-25 -20	
ctg ggc gtg tcg ctc ttc ttg ctt gtc gtt ctc tat cac tac gcg gcc 15	7
Leu Gly Val Ser Leu Phe Leu Leu Val Val Leu Tyr His Tyr Ala Ala -15 -10 -5 1	
gtg g -10 -5 1	1
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tggcaggatt actatagtcc ccccaacaag ctctaccama gaagataata gaacttattg
                                                                      120
agcttaaatg aattatagga magttcctga aaagtccaar gtaaatgtga agagaacccg
                                                                      180
attetettaa eeteaceeaa eeeageaett gatteteeet tgttteetgg tttteataca
                                                                      240
cacactggga aaggamaagg aagaagaaac aaggatgtcg tt atg gct gaa gga
                                                                      294
                                                Met Ala Glu Gly
                                                            -15
get ttg age tte ett tge tet tta teg caa aat gea ttg aat att tee
                                                                      342
Ala Leu Ser Phe Leu Cys Ser Leu Ser Gln Asn Ala Leu Asn Ile Ser
                                    -5
                                                                      357
ctc att tct cgt aag
Leu Ile Ser Arg Lys
        5
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ctgaattgaa tttagctctg tttacggttt tcttttctgt gagcagaagt tcttaatgat
                                                                      120
tactgtagtc aa atg tat cca tct ttt ctt tta tgc ttc aca ctc gta ggg
                                                                      171
              Met Tyr Pro Ser Phe Leu Leu Cys Phe Thr Leu Val Gly
                  -15
                                      -10
act cag tta aga aat tct tcc tta gcc atg
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Thr Gln Leu Arg Asn Ser Ser Leu Ala Met
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<400> 610
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327

327	
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act gtc ggg tgc gct aca gcc agc tcc tgg ggc tgy acg agc agg gg Thr Val Gly Cys Ala Thr Ala Ser Ser Trp Gly Cys Thr Ser Arg -10 -5 1	281
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cag tat cgc ttc cca ccc ttc ttt acg tta caa ccg aat gtg gac act Gln Tyr Arg Phe Pro Pro Phe Phe Thr Leu Gln Pro Asn Val Asp Thr -30 -25 -20	102
cgg cag aag cag ctg gcc gcc tgg tgc tcg ctg gtc ctg tcc ttc tgc Arg Gln Lys Gln Leu Ala Ala Trp Cys Ser Leu Val Leu Ser Phe Cys -15 -10 -5	150
cgc ctg cac aaa cag tcc agc atg acg gtg atg gaa gct cag gag agc Arg Leu His Lys Gln Ser Ser Met Thr Val Met Glu Ala Gln Glu Ser 1 5 10	198
ccg ctc ttc aac aac gtc aag cta cag cga aag ctt cct gtg g Pro Leu Phe Asn Asn Val Lys Leu Gln Arg Lys Leu Pro Val 15 20 25	241
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Met Arg Leu His gta cat tcc ctt tct ccc ttt tcc ttt gct tgt ctc cct ttt ctg tcc Val His Ser Leu Ser Pro Phe Ser Phe Ala Cys Leu Pro Phe Leu Ser	165

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WO 99/53051 328 - 5 5 -10 1 176 ccc ccg ctg gg Pro Pro Leu <210> 613 <211> 342 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 258..341 <221> sig_peptide <222> 258..335 <223> Von Heijne matrix score 3.90000009536743 seq RMCILQLLSAVLY/RF <400> 613 catttctatk aaaatacaaa tttaaggctg tagatttaat atgtagtatg ttcattrrgt 60 tccaaataca ttctaatttc cactgtgatt tctwctttga ctcmtgaawt atttagvagg 120 tgwttttgwh ttabdwattt ctgactgtat ggggattttc tagttagttt wctactctta 180 attigictic agagamaata ciccacaaga titicagicti icaattiigi igcaactigc 240 tacaaacttg gcctaac atg ttg cat ttt wta tat atg atc caw gtg tgc 290 Met Leu His Phe Xaa Tyr Met Ile Xaa Val Cys -25 -20 ttg gaa aga atg tgc att ctg caa ttg ttg agt gct gtg ttg tat aga 338 Leu Glu Arg Met Cys Ile Leu Gln Leu Leu Ser Ala Val Leu Tyr Arg -10 ttt g 342 Phe <210> 614 <211> 154 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 48..152 <221> sig_peptide <222> 48..137 <223> Von Heijne matrix score 3.90000009536743 seg VGLLDTPLGAVSA/HH <221> misc_feature <222> 17 <223> n=a, g, c or t <400> 614 agteggageg aaggventgg eggasagaac ggattgeagg gteagee atg tea tet 56 Met Ser Ser

gag cct ccc cca cca cca cag ccc ccc acc cat caa gct tca gtc ggg 104 Glu Pro Pro Pro Pro Pro Gln Pro Pro Thr His Gln Ala Ser Val Gly -20 ctg ctg gac acc ccc ctc gga gcc gtg agc gct cac cat ccc ctc tgc 152 Leu Leu Asp Thr Pro Leu Gly Ala Val Ser Ala His His Pro Leu Cys - 5 1

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ttatctttga caaaataatt tctctgatgc ctgactgcct gcccccaac aacaaagctt
                                                                      120
ttattatact tcttaactaa tcaactatwm cyttacccat ctagccaaag tagactaccc
                                                                      180
atat atg ttt ctt gac cat gtc agg ttt tta acc tcc ata tct ttt ctt
                                                                      229
     Met Phe Leu Asp His Val Arg Phe Leu Thr Ser Ile Ser Phe Leu
                         -15
                                              -10
gct ctg gtc ctg tgg aat gtc ttt ctc aac tct acc cgt ctg g
                                                                      272
Ala Leu Val Leu Trp Asn Val Phe Leu Asn Ser Thr Arg Leu
-5
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                                       Met Arg Glu Lys Pro Gln
cca gcg ctc ctg act tca agt gar ctg cct gcc ttg gcc tct caa ata
                                                                      101
Pro Ala Leu Leu Thr Ser Ser Glu Leu Pro Ala Leu Ala Ser Gln Ile
                                -5
            -10
                                                                      114
cat tgc cgc gtc c
His Cys Arg Val
    5
<210> 617
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score 3.90000009536743 seq CTFLSLSLHPWGG/FF

<221> sig peptide

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332

<222> 348..349

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333

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<223> n=a, g, c or t

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                                                                      120
tttttagttt ttattttcct acaccatacc atagtagaac tattactgtt gttatttata
                                                                      180
ttttttaaaa aattcacttg tttttctcga gaatttgtga ctgatttta tgttatactg
                                                                      240
cataattcag taatttcaca cattaacaac atccagggtc atgtgaggat gagttttcta
                                                                      300
gcttctgaaa tgttctgagg atgtaatttt ttaataagag gaa atg tnn tct cac
                                                                      355
                                                 Met Xaa Ser His
aga cta ttt ggg tgt ttt cca agt gac ttg tca cga atg gtt ttg ctc
                                                                      403
Arg Leu Phe Gly Cys Phe Pro Ser Asp Leu Ser Arg Met Val Leu Leu
            -20
tct agt gca ctt ctg agt aca gaa aac ca
                                                                      432
Ser Ser Ala Leu Leu Ser Thr Glu Asn
        - 5
<210> 624
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      seq YLCLHLCAFSTEG/WM
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                                                                       60
caatagaagg cattagaaga gaccttccat atg cgc cca tca cat tct tca gcc
                                                                      114
                                 Met Arg Pro Ser His Ser Ser Ala
                                     -20
                                                                      162
tac cta tgt ctg cac ctt tgt gct ttc agt act gaa ggt tgg atg aac
Tyr Leu Cys Leu His Leu Cys Ala Phe Ser Thr Glu Gly Trp Met Asn
           -10
                                - 5
egt etg tee tet tet eta agg etg get eet eta eet ttg tae eet ttt
                                                                      210
Arg Leu Ser Ser Ser Leu Arg Leu Ala Pro Leu Pro Leu Tyr Pro Phe
                                             15
                        10
                                                                      233
tgc cta ccc agc aat tca ccc ca
Cys Leu Pro Ser Asn Ser Pro
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334

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	999 Gly																		99
	atc Ile	_	_							eu (_		_	_		-	al	147
	ttc Phe									g I									195
	gcc Ala	_				-		_					_		Lu			_	243
_	tcg Ser	_	_		_		_				_	-		_			-	-	291
	gaa Glu 80																		339
	gag Glu					_				y 1					=				380
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Pro	ggc Gly	Glu -70	Arg	Leu	Cys	Asn	Leu -65	Glu	ı Gl	u C	Gly	Ser	Pro	o G] 0	У	Ser	Gl	У.	101
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                                                                      120
gccaccattt gggcagcccc agcccatcta cccagggtat catcagtcca gct atg
                                                                      176
qtq qqc aat caq qqt cca cag ccc ccg cca ttc cct atg gag cct aca
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Val Gly Asn Gln Gly Pro Gln Pro Pro Pro Phe Pro Met Glu Pro Thr
               -55
                              -50
atg gcc cag tac cag gct atc agc aaa cac ctc ccc aag gta tgt caa
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Met Ala Gln Tyr Gln Ala Ile Ser Lys His Leu Pro Lys Val Cys Gln
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gag ccc cac ctt cct cgg ggg cac ctc cag cct caa cag cac agg ctc
Glu Pro His Leu Pro Arg Gly His Leu Gln Pro Gln Gln His Arg Leu
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ctt gtg gcc agg ctg cat atg gcc agt ttg gca agg aga tgt aca gaa
Leu Val Ala Arg Leu His Met Ala Ser Leu Ala Arg Arg Cys Thr Glu
                        -5
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336	
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gtg agt gtt aca gtt ctt aaa gat ggt gtg gct gga gtt tgt ttc ttc Val Ser Val Thr Val Leu Lys Asp Gly Val Ala Gly Val Cys Phe Phe -20 -15 -10	282
aga cgt tca gat gcg tct gaa gtt tct tcc ttc tgg Arg Arg Ser Asp Ala Ser Glu Val Ser Ser Phe Trp -5 1 5	318
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tgt atg cct tct ttt gaa aag tgt ctg ttc tta tct ttt gcc cac ttc Cys Met Pro Ser Phe Glu Lys Cys Leu Phe Leu Ser Phe Ala His Phe -15 -5	148
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-20 -15 agt ctc tta tca gat ata tta ttt gca aat att ttc tcc cat tct tgg Ser Leu Leu Ser Asp Ile Leu Phe Ala Asn Ile Phe Ser His Ser Trp	161

337 - 5 gac gtc ttt cca ctt tct ttt ctt ttc ttt tct tt 196 Asp Val Phe Pro Leu Ser Phe Leu Phe Phe Ser 10 <210> 631 <211> 339 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 53..337 <221> sig_peptide <222> 53..304 <223> Von Heijne matrix score 3.90000009536743 seq SSLLIILLPNTQD/LR <400> 631 agttccgacg aaaaatggcg gggtctcctg agttggtggt ccttgaccct cc atg gga 58 caa gga gct cgc ggc tgg cac aga gag cca ggc ctt ggt ctc cgc cac 106 Gln Gly Ala Arg Gly Trp His Arg Glu Pro Gly Leu Gly Leu Arg His -80 -75 -70 too cog aga aga ott tog ggt gog ctg cac otc gaa gog ggo tgt gac 154 Ser Pro Arg Arg Leu Ser Gly Ala Leu His Leu Glu Ala Gly Cys Asp -60 -55 202 cga aat gct aca act gtg cgg ccg ctt cgt gca aaa shc ggg gac gct Arg Asn Ala Thr Thr Val Arg Pro Leu Arg Ala Lys Xaa Gly Asp Ala -45 ctg ccg gag gag att cgg gag ccc gct ctg cga gat gcg cag tgg gta 250 Leu Pro Glu Glu Ile Arg Glu Pro Ala Leu Arg Asp Ala Gln Trp Val -30 -25 cgg gac cag tta gcc agt tct tta ctc atc atc ctc tta ccc aac acc 298 Arg Asp Gln Leu Ala Ser Ser Leu Leu Ile Ile Leu Leu Pro Asn Thr -15 -10 cag gat ctt agg att cag aaa gat ccc aca cca ggc ccg gg 339 Gln Asp Leu Arg Ile Gln Lys Asp Pro Thr Pro Gly Pro 5 <210> 632 <211> 433 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 171..431 <221> sig_peptide <222> 171..314 <223> Von Heijne matrix score 3.79999995231628 seq NSLLLLCLYIYP/HS <221> misc feature <222> 376..377

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tggataaacc atacctctag attccttgct	tccattttcc	cagaaacaag atg a	igg 176
		Met A	_
aag aga aag atc agt gtg tgt caa			
Lys Arg Lys Ile Ser Val Cys Gln	Gln Thr Trp		Lys
-45 -40		-35	
aac ttt ctt aaa aaa tgg aga atg			
Asn Phe Leu Lys Lys Trp Arg Met	Lys Arg Glu	Ser Leu Met Glu	Trp
-30 -25	-20		-15
ctg aat tca ttg ctc cta cta ctt			
Leu Asn Ser Leu Leu Leu Leu	Cys Leu Tyr	Ile Tyr Pro His	Ser
-10	-5	1	
cat caa gta aat gaw tdd tct tca			
His Gln Val Asn Xaa Xaa Ser Ser	Leu Leu Thr	Met Asp Leu Gly	Arg
5 10		15	
gta gat rnn tkt aat gaa tcc aga			
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Thr Asn Thr Thr Pro			
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Cys Thr Cys Leu Cys Val Cys Leu	Tyr Met Tyr	Asn Met Gln Phe	Leu
-25	-20	-15	
kyt ttt gtg ttt gtk tgc gww ttg	cta aag tgt	atg agt gtg cct	ttg 152
Xaa Phe Val Phe Val Cys Xaa Leu	Leu Lvs Cvs	Met Ser Val Pro	Leu
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tg	-	_	154
cg .			
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		.59
gct ac		06
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gct gag atc acc aat atc cga cct agc ttt gat gtg tca ccg gtg gtg Ala Glu Ile Thr Asn Ile Arg Pro Ser Phe Asp Val Ser Pro Val Val -35 -30 -25	345
gcc ggc ctc atc ggg gcc tct gtg ctg gtg gtg tgt gtc tcg gtg acc Ala Gly Leu Ile Gly Ala Ser Val Leu Val Val Cys Val Ser Val Thr -20 -15 -10	393
gtc ttt gtc tgg tca tgc tgc crc cag cag gca gag aag aag cac aag Val Phe Val Trp Ser Cys Cys Xaa Gln Gln Ala Glu Lys Lys His Lys -5 5 10	441
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gtc att tta act atg tta att ctt tta atc cat gag cat ggt att ttc Val Ile Leu Thr Met Leu Ile Leu Leu Ile His Glu His Gly Ile Phe -10 -5 1	285
ttt tca ctt gtt tgt gtc ctc ttc Phe Ser Leu Val Cys Val Leu Phe 5 10	309
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344

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tac aca cca cag cac agc ccg ctc aca cac aca cac aca tgc acc cca Tyr Thr Pro Gln His Ser Pro Leu Thr His Thr His Thr Cys Thr Pro -20 -15 -10 -5 ccc agc aca gct cac cca cgc ggg	221
Pro Ser Thr Ala His Pro Arg Gly	
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gaatttaata gggaagaaag agacagtata actcaccagt gctgggtctc atcatcctgc
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aatttcdgaa caactatgaa tacaaaaaga attttaaaat cccagtcctg cctagaaagg
                                                                      240
ggaagtcatc tctaaat atg gtg gcc ctg ggg cag ctg gcc tdc ctg cca
                                                                      290
                  Met Val Ala Leu Gly Gln Leu Ala Xaa Leu Pro
                                   -15
                                                                      338
ggc nbc tdc cat ggg ggc ctt tct gca gtg act gtg gtt ctt ccc att
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                   Met Pro Val Ser Phe Val Cys Leu Leu Phe Arg
                   -15
                                        -10
                                                                       143
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346

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                                                                      103
Asp Ser Leu Leu Gly Gly Arg Gly Ser Leu Pro Leu Leu Pro Ala
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                                                                      151
His His Gly Arg His Gly Ser Gly Leu Pro Ala Pro Asp Pro Ser Pro
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ccc cca gga cca gct gtt cca ggg ccc tgg ccc tgc cag gat gag etg
                                                                      199
Pro Pro Gly Pro Ala Val Pro Gly Pro Trp Pro Cys Gln Asp Glu Leu
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Pro Ser Leu Arg Pro Ala Thr Ser His His Phe
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                                                                       48
    Met Ala Val Gly Gly Thr Ala Val Ile Thr Arg Arg Leu Leu Gly
                        -20
                                            -15
aga tot gga tto tog ttt cag gtt tog ggg tgg ggg tgg gga gaa agg
                                                                      96
Arg Ser Gly Phe Ser Phe Gln Val Ser Gly Trp Gly Trp Gly Glu Arg
                    - 5
                                        1
gtc gat gat ttc ctt ttt tcg tcg ggt ata gac ggr a
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347

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ctt Leu	gct Ala	cac His	cac His	cca Pro -5	aga Arg	acc Thr	tca Ser	gga Gly	cag Gln 1	aag Lys	cga Arg	gag Glu	ccc Pro 5	att Ile		400
	-	_		_	ccg Pro	_										419
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Glu 10	Trp	Val	Met	Val	Ala 15	Trp	Asn	agc Ser	Ile	Ser 20	Ser	Glu	Ser	Ile	Val 25	345
caa Gln	Gly 999	whc Xaa	aaa Lys	gaa Glu 30	gtg Val	cca Pro	tat Tyr	ctc Leu	crg Xaa 35	caa Gln	ctt Leu	gga Gly	gga Gly	gga Gly 40	aga	393
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349

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aag gtg ccc agg aac ctg agg tgg cag aaa cac tac tcc acc cac cag g

25

Lys Val Pro Arg Asn Leu Arg Trp Gln Lys His Tyr Ser Thr His Gln

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197

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ttt tcc ctg gag gaa tgg agt ctt ct Phe Ser Leu Glu Glu Trp Ser Leu

15

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<213> Homo sapiens

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catttcagaa agtgcagcgt gacccgcagt ttgtgggaag ccatggagct cggcactgcc
atcctaatac ttcctaaagc acaaaacccc agagacaatc tggggtcagg agagtggaag
gggcttgtct gccacactgg tg atg agt gcc ctg aaa gac ttc aga gaa ttt
Met Ser Ala Leu Lys Asp Phe Arg Glu Phe

-25 -20

340

388

ctg aac tgg tgg gga aac ctc tct ttt cat ctt cag gaa gct cat gga Leu Asn Trp Trp Gly Asn Leu Ser Phe His Leu Gln Glu Ala His Gly
-15
-5

agt gaa att gca gaa atg gga gct ggt att cta gag gaa aaa aat tat Ser Glu Ile Ala Glu Met Gly Ala Gly Ile Leu Glu Glu Lys Asn Tyr

1 5 10 15
ggv caa caa wat cac tgt aac ta 411
Gly Gln Gln Xaa His Cys Asn

20

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353

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aatgtaccac agtttgttta accattcacc cactgaagga cgtttggatt gtttctaagt

120

355
tttqactqtg gcaaqtaaag atgctatgaa cattcatgta cacatgaatt tgtaggcat 179

atg ttt tta ttt tgc tgg gag aaa agc cca aga atg cag ttg ctg ggt

Met Phe Leu Phe Cys Trp Glu Lys Ser Pro Arg Met Gln Leu Leu Gly

-25 -20 -15 -10

tgt atg gta ttg tat gat tgt ttt tct ttt aag aaa ctg ccg ggg g 273

Cys Met Val Leu Tyr Asp Cys Phe Ser Phe Lys Lys Leu Pro Gly

-5 1 5

<210> 667

<211> 149

<212> DNA <213> Homo sapiens

<220>

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<222> 8..148

<221> sig_peptide

<222> 8..97

<223> Von Heijne matrix
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 seq FVCFFHVFYCVFC/NV

<400> 667

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Met Ser Phe Ile Ser Val Ile Phe Pro Leu Ile Leu Leu Asn

30 -25 -20

cgt ttt tca ttt gtt tgt ttc ttt cat gtc ttt tac tgt gtt ttc tgc 97
Arg Phe Ser Phe Val Cys Phe Phe His Val Phe Tyr Cys Val Phe Cys
-15 -5

aac gtc tct tct ttg ttc tcc tat cag ttt ctt ctt cat ttc tgt gat
Asn Val Ser Ser Leu Phe Ser Tyr Gln Phe Leu Leu His Phe Cys Asp

149

99

1 5 10 15 gac t

Asp

<210> 668

<211> 122

<212> DNA <213> Homo sapiens

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<222> 16..120

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<222> 16..108

seq LGMGMGFFSGVKS/WI

<400> 668

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Met His Glu Tyr Leu Pro Arg Asn Phe His Asp Phe

-30 -25 -20

aat tot coc aac tot aaa tta ggc atg gga atg ggc ttt ttc tca ggt
Asn Ser Pro Asn Ser Lys Leu Gly Met Gly Met Gly Phe Phe Ser Gly
-15 -10 -5

gtc aaa tct tgg att gga ggt ga 122

Val Lys Ser Trp Ile Gly Gly

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357

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30 35

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gct cct gct tgg aga sgh ytg arc acy agg aga cta cca atg ggg agc Ala Pro Ala Trp Arg Xaa Leu Xaa Thr Arg Arg Leu Pro Met Gly Ser -35 -30 -25	54
agg cac ggt gcc agc ccg gcc tct gcc gtc tgg tgt ctg tmc ctc aag Arg His Gly Ala Ser Pro Ala Ser Ala Val Trp Cys Leu Xaa Leu Lys -20 -15 -10	12
tta gtc cca gct ttg tgc att agc ggg ctc acc ctc gga atc cag gga Leu Val Pro Ala Leu Cys Ile Ser Gly Leu Thr Leu Gly Ile Gln Gly -5 1 5 10	50
Phe 26	53
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tat ttt aaa acc act aca nta nnb cat agt gca cat atg ctt ctg caa Tyr Phe Lys Thr Thr Thr Xaa Xaa His Ser Ala His Met Leu Leu Gln -30 -25 -20	65
att tgc ttt ttt cgc tta aca atc tta gkt ttc cat gac aat aca tgg Ile Cys Phe Phe Arg Leu Thr Ile Leu Xaa Phe His Asp Asn Thr Trp	13

3,37	
ggg tca act tca ttc tct twa gtt gck gca atg cta ttc cac tac cgg Gly Ser Thr Ser Phe Ser Xaa Val Ala Ala Met Leu Phe His Tyr Arg 1 5 10 15 gg	261 263
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ggc ttc cct ctg ctt ttt ctt ttt ctt ttt ctt ttt ctt ttt ttt ttt ttt Gly Phe Pro Leu Phe Leu Phe Leu Phe Leu Phe Phe Phe -15 -10 -20 Red ttt ctt ttt ttt ttt ttt ttt Ctt ttt ctt ttt ttt ttt -10 -5	101
ttt ttt Phe Phe 1	107
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gaa aac ttt gat gat tat atg aaa gaa gta gga gtg ggc ttt gcc acc Glu Asn Phe Asp Asp Tyr Met Lys Glu Val Gly Val Gly Phe Ala Thr -50 -45 -40	159
agg aaa gtg gct ggc atg gcc aaa cct aac atg atc atc agt gtg aat Arg Lys Val Ala Gly Met Ala Lys Pro Asn Met Ile Ile Ser Val Asn -35 -30 -25	207
ggg gat gtg atc acc att ccc cac ctg gtc ctc ccc ctt ccc atg ctg Gly Asp Val Ile Thr Ile Pro His Leu Val Leu Pro Leu Pro Met Leu -20 -15 -10	255
cca act tct aac cgc aag agg Pro Thr Ser Asn Arg Lys Arg	276

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361 <220> <221> CDS <222> 31..234 <221> sig_peptide <222> 31..228 <223> Von Heijne matrix score 3.59999990463257 seq LTSFLSIXIFVNP/TR atttttcacc actgcatagt gttacattgt atg att ttc cca cat tgc atg tac Met Ile Phe Pro His Cys Met Tyr -65 tgt tta gag tgt ata act aag aat gga ttg cta ggt tta aag gtg ctt 102 Cys Leu Glu Cys Ile Thr Lys Asn Gly Leu Leu Gly Leu Lys Val Leu -55 -50 cca ctc tat ggg ata atg cta att ttt ttc cct aaa gtg gtt tat aac 150 Pro Leu Tyr Gly Ile Met Leu Ile Phe Phe Pro Lys Val Val Tyr Asn ~40 -35 -30 aat caa ccc ttg cac tac aag tca gta atg gtg ttt cag ttg act tca 198 Asn Gln Pro Leu His Tyr Lys Ser Val Met Val Phe Gln Leu Thr Ser -20 ttc ttg tcg att tka att ttt gtc aac ccc act cgg g 235 Phe Leu Ser Ile Xaa Ile Phe Val Asn Pro Thr Arg <210> 680 <211> 410 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 173..409 <221> sig_peptide <222> 173..334 <223> Von Heijne matrix score 3.59999990463257 seq LMAXLLTVEVTHP/NS <221> misc_feature <222> 305 <223> n=a, g, c or t <400> 680 taatcgaaaa gctcagtgcg caggcgcgaa gaagctggca ggggcacgag ccgggggggg 60 gtttgaagac gcgtcgttgg gttttggagg ccgtgaaaca gccgtttgag tttggctgcg 120 ggtggagaac gtttgtcagg ggcccggcca agaaggaggc ccgcctgtta cg atg gtg 178 tee atg agt tte aag egg aac ege agt gae egg tte tae age ace egg 226 Ser Met Ser Phe Lys Arg Asn Arg Ser Asp Arg Phe Tyr Ser Thr Arg -50 -45 -40 tgc tgc ggc tgt tgc cat gtc cgc rcc ggg acg atc atc ctg ggg acc 274 Cys Cys Gly Cys Cys His Val Arg Xaa Gly Thr Ile Ile Leu Gly Thr -30 -25 tgg tac atg gta gta aac cta ttg atg gca nbt ttg ctg act gtg gaa 322 Trp Tyr Met Val Val Asn Leu Leu Met Ala Xaa Leu Leu Thr Val Glu -15 -10 gtg act cat cca aac tcc atg cca gct gtc aac att cag tat gaa gtc 370 Val Thr His Pro Asn Ser Met Pro Ala Val Asn Ile Gln Tyr Glu Val

10 1 atc ggt aat tac tat tcg tct gag aga atg gct gat aat g 410 Ile Gly Asn Tyr Tyr Ser Ser Glu Arg Met Ala Asp Asn <210> 681 <211> 303 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 21..302 <221> sig_peptide <222> 21..113 <223> Von Heijne matrix score 3.59999990463257 seg STFALTIXRXXSC/SS <221> misc feature <222> 102 <223> n=a, g, c or t <400> 681 gagttkgact gtgaagaaac atg gcg gcc gcg acg ttg act tcg aaa ttg tac 53 Met Ala Ala Ala Thr Leu Thr Ser Lys Leu Tyr -30 -25 tcc ctg ctg ttc cgc agg acc tcc acc ttc gcc ctc acc atc akc cgt 101 Ser Leu Leu Phe Arg Arg Thr Ser Thr Phe Ala Leu Thr Ile Xaa Arg -15 -10 ngg gsg tca tgt tct tcg rgc gcg cct tcg atc aag gcg cgg acg cta 149 Xaa Xaa Ser Cys Ser Ser Xaa Ala Pro Ser Ile Lys Ala Arg Thr Leu 5 tct acg acc aca tca acg agg gga agc tgt gga aac aca tca agc aca 197 Ser Thr Thr Thr Ser Thr Arg Gly Ser Cys Gly Asn Thr Ser Ser Thr 20 agt atg aga aca agt agt tcc ttg gag gcc ccc atc cag gcc aga agg 245 Ser Met Arg Thr Ser Ser Leu Glu Ala Pro Ile Gln Ala Arg Arg 35 40 acc agg tcc acc cag cag ctg ttt gcc cag agc tgg agc ctc agc dtg 293 Thr Arg Ser Thr Gln Gln Leu Phe Ala Gln Ser Trp Ser Leu Ser Xaa 45 303 aag atg atg c Lys Met Met <210> 682 <211> 328 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 79..327 <221> sig_peptide <222> 79..201 <223> Von Heijne matrix score 3.59999990463257 seq LHTSVTLFLLSYC/DC

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<223> Von Heijne matrix

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score 3.59999990463257

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WO 99/53051 367 -60 -55 act aca aac caa acc aat gga tct tct act aca gga gat aaa cct gtt 154 Thr Thr Asn Gln Thr Asn Gly Ser Ser Thr Thr Gly Asp Lys Pro Val -45 -40 gaa tca atg cag aca aaa ttg aac tac ctt aga aga aat cta ctc att 202 Glu Ser Met Gln Thr Lys Leu Asn Tyr Leu Arg Arg Asn Leu Leu Ile -30 -25 tta gtt ggt att atc atc atg gtt ttt gtc ttt atc tgt ttt tgt tat 250 Leu Val Gly Ile Ile Ile Met Val Phe Val Phe Ile Cys Phe Cys Tyr -15 -10 ctc cat tat aat tgt ctg agc gat gat gcg tcc aaa gca gga atg gtc 298 Leu His Tyr Asn Cys Leu Ser Asp Asp Ala Ser Lys Ala Gly Met Val 10 aag aaa aaa ggc ata gca gcc aag tca tct aaa aca tca ttc agt gaa 346 Lys Lys Lys Gly Ile Ala Ala Lys Ser Ser Lys Thr Ser Phe Ser Glu 25 gcc aag aca gcc tct caa tgc agt tca gaa aca caa acc ggg 388 Ala Lys Thr Ala Ser Gln Cys Ser Ser Glu Thr Gln Thr Gly . ._ 3.540 ---<210> 691 <211> 408 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 304..408 <221> sig peptide <222> 304..387 <223> Von Heijne matrix score 3.59999990463257 seq IFFSLTLSGCKFS/KL <400> 691 cttgacttct gtgcactcac aggcttgatc aacaccacaa ggaagctgcc aaggccatcc tetgaaacca cageeegage tetatgttgg cecettttag ceatgqetqq aatqqetgag 120 acacaggaca ccaagtccct aggctgtaca cagcactggg accctgggcc ctgcccatgg aacaattttt teeteetaaa tetteaggee tgtgatggga ggggetaceg caaaggtete 240 tgacatgccc cagatacatt ttccctattg tcttggggat taacatttgg ctcctcgtta 300 ctt atg caa att tct gca gcc agc ttg aat ttc tcc tca aaa aat gga 348 Met Gln Ile Ser Ala Ala Ser Leu Asn Phe Ser Ser Lys Asn Gly -25 -20 att ttc ttt tct tta aca ttg tca ggc tgc aaa ttt tcc aaa ctt tta 396 Ile Phe Phe Ser Leu Thr Leu Ser Gly Cys Lys Phe Ser Lys Leu Leu tgc cct ttt ggg 408 Cys Pro Phe Gly 5 <210> 692 <211> 322 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 106..321

<221> sig_peptide <222> 106..261

<223> Von Heijne matrix

score 3.59999990463257

seg LVWDCLLPPPSFF/LL

<221> misc_feature <222> 284..285 <223> n=a, g, c or t

<400> 692

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cct gtg gtt ctg aaa cca gtg ttt cta aat att ttt ttc ttt tca cat 165 Pro Val Val Leu Lys Pro Val Phe Leu Asn Ile Phe Phe Ser His -45 -40

cat gta ttt aca gtg ttt ttc agt ggt agt cat gtt gac atc ctg agt 213 His Val Phe Thr Val Phe Phe Ser Gly Ser His Val Asp Ile Leu Ser

cgc aca gtt ctt gtt tgg gac tgt ctt ctt cct cct cct tcc ttc ttc 261 Arg Thr Val Leu Val Trp Asp Cys Leu Leu Pro Pro Pro Ser Phe Phe -10 - 5

ctc ctt ctt ctt tct tcc tnn tcc ttv ctc ctc ctt vct dct tct 309 Leu Leu Leu Ser Ser Ser Xaa Ser Xaa Leu Leu Xaa Xaa Ser 10

tcc tcc tcc cgg g 322

Ser Ser Ser Arg

20

<210> 693

<211> 153

<212> DNA <213> Homo sapiens

<220>

<221> CDS

<222> 93..152

<221> sig_peptide

<222> 93..134

<223> Von Heijne matrix score 3.59999990463257 seq LVPLLSHLLFKFT/WP

<400> 693

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cac ttg ctc ttc aag ttt acc tgg cca aaa tkg tcc cag g 153 His Leu Leu Phe Lys Phe Thr Trp Pro Lys Xaa Ser Gln

<210> 694

<211> 234

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 23..232

<221> sig_peptide

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371 Met Ala Glu His Leu Lys Asp Val Ile Leu Leu Thr Ala Ile Val Gln 60 55 gtg ctc age tgc ttc tct ctc tat gtc tgg tcc ttc tgg 493 Val Leu Ser Cys Phe Ser Leu Tyr Val Trp Ser Phe Trp 70 <210> 698 <211> 174 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 8..172 <221> sig_peptide <222> 8..94 <223> Von Heijne matrix score 3.59999990463257 seq AFNKAVWFTPCSC/QE <400> 698 aacaaag atg gcg gcg gtg act gtg acg gtg acg aag acg gcg gcg 49 Met Ala Ala Val Thr Val Thr Val Thr Lys Thr Ala Ala Ala -25 gcg acg gca ttt aac aag gcg gtg tgg ttt act cca tgc agt tgt cag 97 Ala Thr Ala Phe Asn Lys Ala Val Trp Phe Thr Pro Cys Ser Cys Gln -15 -5 -10 gag gta agt agc agg ctg ccg gct cgg acg gcg acg cgg cag gac 145 Glu Val Ser Ser Arg Leu Pro Ala Arg Thr Ala Ala Thr Arg Gln Asp 10 174 agg gcg gat aag aag gag cgg ccc tgt gg Arg Ala Asp Lys Lys Glu Arg Pro Cys <210> 699 <211> 300 <212> DNA <213> Homo sapiens <220> <221> CDS <222> 199..300 <221> sig_peptide <222> 199..255 <223> Von Heijne matrix score 3.59999990463257 seq PGSAICLWHSTLG/GX <221> misc feature <222> 261 <223> n=a, g, c or t <400> 699 attttgtctc ggcagcqqtg gccqwagctc catcqcattt tatgtttctg gcqagaaqqg 60 aacggagttt tcatcaggta gattggtttt trtgcggccg tcctccaccg tttcctccag 120 180 gacagcacct agtcgtggcc ggaggagtct catagctgtc agaaagaata agactgattt tatgggaaaa ttaagcag atg ctc cag ttt gag aaa cct gga tct gcg atc 231 Met Leu Gln Phe Glu Lys Pro Gly Ser Ala Ile -15

tgt ttg tgg cac agc act ttg gga ggy ymn ggc ggg cgt gag att gds

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372
Cys Leu Trp His Ser Thr Leu Gly Gly Xaa Gly Gly Arg Glu Ile Xaa
           -5
                                1
agt ttg aga cca gcc tgc ggg
                                                                      300
Ser Leu Arg Pro Ala Cys Gly
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                                                                      60
acaaatagaa actattgatt ttygt atg ttg att tcg tat ctt gca att tta
                                                                      112
                            Met Leu Ile Ser Tyr Leu Ala Ile Leu
                                        -15
cta aaa tgg gtt agc aat tct aag agt ttt ttg gtg aag gca tcg gg
                                                                      159
Leu Lys Trp Val Ser Asn Ser Lys Ser Phe Leu Val Lys Ala Ser
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<222> 46..90
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agtgtgtccg gaattggtgg gttcttggtc tcactgagtt ctaga atg aag ctg cag
                                                                      57
                                                Met Lys Leu Gln
                                                                      105
acc etc gca ttc tgg tca gcc tat gtg cca tgc cag acc cag gac cgg
Thr Leu Ala Phe Trp Ser Ala Tyr Val Pro Cys Gln Thr Gln Asp Arg
    -10
                        ~ 5
                                           1
                                                                      153
gat gcc ccg cgc ctc acc ctg gag cag att gac ctc ata cgc cgc atg
Asp Ala Pro Arg Leu Thr Leu Glu Gln Ile Asp Leu Ile Arg Arg Met
                                    15
                10
tgt gcc tcc tat tct gag ctg gag ctt gtg acc tcg gct aaa gct ctg
                                                                      201
Cys Ala Ser Tyr Ser Glu Leu Glu Leu Val Thr Ser Ala Lys Ala Leu
            25
                                30
                                                    35
aac gac act cag aaa ttg gcc tgc ctc atc ggt gta gag ggt ggc cac
                                                                      249
Asn Asp Thr Gln Lys Leu Ala Cys Leu Ile Gly Val Glu Gly His
       40
                                                50
                                                                      274
tcg ctg gac aat agc ctc tcc agg g
Ser Leu Asp Asn Ser Leu Ser Arg
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55
                        60
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<223> Von Heijne matrix
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                                                                       60
atttgatttt tcaagtgagt tattaggata taggtgggag tggaga atg cct gcc
                                                                      115
                                                    Met Pro Ala
tgc ctt tct tcc ttt gtc att ccc tct ctc ctt tct ccc tcc cct
                                                                      163
Cys Leu Ser Ser Phe Val Ile Pro Ser Leu Leu Ser Pro Ser Ser Pro
    -10
                        -5
                                             1
ccc tcc ata ggg
                                                                      175
Pro Ser Ile Gly
<210> 703
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tegeceactt gttgatgagg ttgtttttt cttgtaaatt tgtttgtgtt cattgtaagt
                                                                      120
totggatatt agccotttgt cagatgagta gattgtaaaa attttctccc attctacagg
                                                                      180
ttgcctgttc actctg atg gta gtt tct ttt gct ggt tct tgc aca att cta
                                                                      232
                  Met Val Val Ser Phe Ala Gly Ser Cys Thr Ile Leu
                                           -10
gge gee agt age cat tea tte eee att gaa gte age etg tte eea gtg
                                                                      280
Gly Ala Ser Ser His Ser Phe Pro Ile Glu Val Ser Leu Phe Pro Val
                1
                                5
                                                                      298
gac tgt ggc ttc ctc ttg
Asp Cys Gly Phe Leu Leu
        15
<210> 704
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seg AVSQSWLAAPSTS/WV

ttettattaa agatttattt ttgtagagae agatgtetea atg tgt tge eea gge 55 Met Cys Cys Pro Gly

-20

136

tgg aac gca gtg tcg caa tct tgg ctc gct gca cct tcc acc tcc tgg 103 Trp Asn Ala Val Ser Gln Ser Trp Leu Ala Ala Pro Ser Thr Ser Trp -15 -10

gtt caa gag att ctc gta ctt cag cct cca ggg

Val Gln Glu Ile Leu Val Leu Gln Pro Pro Gly

<210> 705

<211> 433

<212> DNA

<213> Homo sapiens

<220>

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<222> 225..431

<221> sig_peptide

<222> 225..386

<223> Von Heijne matrix score 3.5

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aaa gtc tct cct gat tat aac tgg ttt aga ggt aca gtt ccc ctt aaa Lys Val Ser Pro Asp Tyr Asn Trp Phe Arg Gly Thr Val Pro Leu Lys -40 -45

aab dtw atk gtg gat gat gat gac agt aag ata tgg tcg chc tat gac 332 Xaa Xaa Xaa Val Asp Asp Asp Ser Lys Ile Trp Ser Xaa Tyr Asp -30 -25 -20

gcg ggc ccc cga agt atc agg tgt cct ctc ata ttc ctg cyc yct gtc 380 Ala Gly Pro Arg Ser Ile Arg Cys Pro Leu Ile Phe Leu Xaa Xaa Val

-15 -10 agt gga act gha gat gtc ttt ttc cgg cag att ttg gct ctg act gga 428 Ser Gly Thr Xaa Asp Val Phe Phe Arg Gln Ile Leu Ala Leu Thr Gly

10 tgg gg 433

Trp

15

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<211> 419

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cat agc cac ctg agc ctg gtg ggg cac agc agg gcc tgt gga gtc aca His Ser His Leu Ser Leu Val Gly His Ser Arg Ala Cys Gly Val Thr -10 -5 1	343
tcc cgg cct cat gct cgg cat agg gga cgc tgc tta ggt cca tgc agt Ser Arg Pro His Ala Arg His Arg Gly Arg Cys Leu Gly Pro Cys Ser 5 10 15 20	391
cgc tca ggg ccc agg ctg tgc agc gcc a Arg Ser Gly Pro Arg Leu Cys Ser Ala 25	419
<210> 707 <211> 382 <212> DNA <213> Homo sapiens	
<220> <221> CDS <222> 200382	
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ccc tca ctt ctg aac cac cct gct tcc agc ctc atc tcc cat gat ccc Pro Ser Leu Leu Asn His Pro Ala Ser Ser Leu Ile Ser His Asp Pro -20 -15 -10	280
tgg cca cgc ggt gcg ttt gcg ctt tca tgt cca agt gct tcc ttc atg Trp Pro Arg Gly Ala Phe Ala Leu Ser Cys Pro Ser Ala Ser Phe Met -5 1 5	328
ttg ttt tct tcc tta caa tgc cct ttc cct tat tgd naa aca gag tgc Leu Phe Ser Ser Leu Gln Cys Pro Phe Pro Tyr Xaa Xaa Thr Glu Cys 10 15 20 25	376
aac gwg	382

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376
Asn Xaa
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<400> 708
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                                                                       60
gctgacagcg ttcaagttgg aatcctggag gggaggtgtt tttcctgtcg tacgtgggac
aggccacgct gtccgtccgc agtaccgacg cctgcagcag gagcattggt ttgaaaaggc
cctacgagac aagaagggct tcatcatcaa gcag atg aag gag gat ggc gcc tgt
                                      Met Lys Glu Asp Gly Ala Cys
                                                   -15
                                                                      283
ctc ttc cgg gct gta gct gac cag gtg tat gga gac cag gac atg cat
Leu Phe Arg Ala Val Ala Asp Gln Val Tyr Gly Asp Gln Asp Met His
    -10
                        -5
gag gtt gtg cga aag cat trc atg gac tat ctg atg aag aat gcc gac
                                                                      331
Glu Val Val Arg Lys His Xaa Met Asp Tyr Leu Met Lys Asn Ala Asp
                                    15
tay ttc tcc arc tat gtc aca gag gac ttt acc acc tac att akc agg
                                                                      379
Tyr Phe Ser Xaa Tyr Val Thr Glu Asp Phe Thr Thr Tyr Ile Xaa Arg
                                30
                                                                      384
aag cg
Lys
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<221> sig_peptide
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<222> 123..124
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                                                                       60
ggctcagttt gatat atg gtt cac ctc att ctt act gaa gtc ctc att atg
                                                                      111
                 Met Val His Leu Ile Leu Thr Glu Val Leu Ile Met
                     -20
                                         -15
atc akc gag gcn nsg aat gtg tgg tgt ggg gát tcg gg
                                                                      149
Ile Xaa Glu Ala Xaa Asn Val Trp Cys Gly Asp Ser
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                                                                       50
                Met Tyr His Asn Leu Phe Ala Leu Leu Leu Ile Asp
                        -45
                                             -40
att cat gtt gtt cta gtt ttt tac tgc ctg gat ctc tta atg att cat
                                                                       98
Ile His Val Val Leu Val Phe Tyr Cys Leu Asp Leu Leu Met Ile His
                    -30
                                        -25
att ttc tat tgt aaa tac tgc ctt gka ttt ggk att tta gca agt gaa
                                                                      146
Ile Phe Tyr Cys Lys Tyr Cys Leu Xaa Phe Gly Ile Leu Ala Ser Glu
                -15
gtc tat tct tgg aac att tac
                                                                      167
Val Tyr Ser Trp Asn Ile Tyr
            1
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<220>
<221> CDS
<222> 84..215
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<222> 84..170
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      seq SPLCSXSSGYCXA/FP
<400> 711
ccgcttttgg ctgcatcagc cggggattgc cggcgccagg tgctgggggc gactcggaca
                                                                       60
gegggagegt ggggtggagt agg atg gag tet eee tee ega get ggg ggt gtr
                                                                      113
                          Met Glu Ser Pro Ser Arg Ala Gly Gly Val
                                          -25
                                                                      161
grc ctm vga aag gct gct tcg ccg ctg tgt tcg gmv agc tct gga tac
Xaa Leu Xaa Lys Ala Ala Ser Pro Leu Cys Ser Xaa Ser Ser Gly Tyr
                -15
                                    -10
                                                         -5
tgc rgg gct ttt ccg cgg agg agc gcc cgc cgg cat ctg cat ccg gga
                                                                      209
Cys Xaa Ala Phe Pro Arg Arg Ser Ala Arg Arg His Leu His Pro Gly
                            5
cac ggg
                                                                      215
His Gly
    15
<210> 712
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<213> Homo sapiens

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cag ca Gln Xa		a Pro	_				_	-			act	aga		_	162
gat ga Asp Gl -6	lu Ly				_			_			_	_			210
caa gg Gln Gl -50	•		_				_	_	_	-	_	_	_		258
ctt ga Leu As	sp Āla	a Ser	Gly -30	Ala	Lys	Leu	Asp	Tyr -25	Arg	Arg	Tyr	Āla	Glu -20	Thr	306
ctc tt Leu Ph	ne Ās	-15	Leu	Val	Ala										354
ctg go Leu Al															375
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ttt tt Phe Le	u Pro	o Phe	Ala	Gln	Gln	Ile 1	Asp	Ile			-				401 429
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Glu Ser Gly Gln Ala Ala Pro Ala Thr Ala Ala Ala Thr Ala Ala Ser
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gcc aca acg ggg gca agt gtg tgg aga agc aca atg ggc wac ctg tgt
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Ala Thr Thr Gly Ala Ser Val Trp Arg Ser Thr Met Gly Xaa Leu Cys
gat tgc acc anb dca cct tat gaa ggg ccc ttt tgc aaa aaa gag gtt
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Asp Cys Thr Xaa Xaa Pro Tyr Glu Gly Pro Phe Cys Lys Lys Glu Val
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Pro Tyr Pro Val Thr Lys Asn Ile Ser Leu Ser Ser Ser Ala Ile Tyr
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Pro Leu Ser Pro Glu Glu Leu Leu Lys Ser Gly Gly Val Asn Gln Tyr -30	
Val Cln Glu Val Leu Ser Ile Lys His Leu Pro Pro Gln Leu Arg -15	Pro Leu Ser Pro Glu Glu Leu Leu Lys Ser Gly Gly Val Asn Gln Tyr
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Ala Phe Gln Ala Ala Phe Arg Ala Gln Gly Pro Leu Ala Met Leu Gln 1	
1 5 0 10 15 305 His Phe Asp Thr Ile Tyr Ser Ile Leu His His Phe Arg Ser Ile Asp Thr Ile Tyr Ser Ile Leu His His Phe Arg Ser Ile Asp 20 25 30 305 2210 720	
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Leu Leu Ser Ala Arg Leu Cys Ala Leu Arg Pro Asp Asp Ser Ser Ser 20 25 30 30 gcc cgm acc gag atc cac ctg mtc ttc gat cag ctc atc tcc gag aac 194 Ala Arg Thr Glu Ile His Leu Xaa Phe Asp Gln Leu Ile Ser Glu Asn 35 40 45 tac agc gag ggc agt ggc gtg gcc ccg gag gac gtw agt gct ctt ctt 242 Tyr Ser Glu Gly Ser Gly Val Ala Pro Glu Asp Val Ser Ala Leu Leu 50 55 60 gtc cag gct tgc ggg 45	seq AVQVVGSWPSVQP/RE <400> 720 aaaag atg gct gct gtg caa gtt gtc ggt tcg tgg cct tcc gtg cag ccg Met Ala Ala Val Gln Val Val Gly Ser Trp Pro Ser Val Gln Pro -15 -10 -5 cgg gag gca ccg cgg gaa gca atc cct gag cga ggc aat ggg ttt cgc Arg Glu Ala Pro Arg Glu Ala Ile Pro Glu Arg Gly Asn Gly Phe Arg
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ttaaattttc atttttcata gtattctgtc ctatgg atg ttt cat ggc tgt cat
                                                                      234
                                       Met Phe His Gly Cys His
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Ile Leu Ser Phe Leu Arg Ile Ser Thr Arg Gly Phe Leu Phe Phe Leu
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                                    -15
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Gln Phe Ser Phe Pro Leu Tyr Tyr Leu Phe Arg Xaa Xaa Phe Pro Gln
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                                                                      108
    Met Tyr Arg His Ser Lys Gln Arg Asn Asn Val Pro Cys Leu Val
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                            -20
                                                -15
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Leu Tyr Ala Pro Trp Val Pro Pro Leu Leu Ala Phe Trp Gly Trp
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gmat atg ttt cta act ttt ttt ttc tgc aca caa gtt cat ggt cct tct
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     Met Phe Leu Thr Phe Phe Cys Thr Gln Val His Gly Pro Ser
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Ile Leu Asp Ser Pro Ala
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                                                                      104
Phe Gln Phe Phe Leu Cys Leu Thr Cys Lys Ala Tyr Asn Leu Arg Asn
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tgt aat gat ggg aag ggh wga gsm tca gwg gtg ctt gga ttg gaa caa
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Cys Asn Asp Gly Lys Gly Xaa Xaa Ser Xaa Val Leu Gly Leu Glu Gln
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mnr cta cct gaa tct gct ggt atg gta caw ttt tta ggt ttg aaa cac
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Xaa Leu Pro Glu Ser Ala Gly Met Val Xaa Phe Leu Gly Leu Lys His
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Val Leu Trp Ala Gly Pro Xaa Val Pro Leu Leu Cys Ala Ala Xaa Gly
                                 -5
ctt ggt gcc ctg cat ccc aga tgc tct agt caa ggc ttg agg ctt gcr
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Leu Gly Ala Leu His Pro Arg Cys Ser Ser Gln Gly Leu Arg Leu Ala
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sct tct gaa gcc
Xaa Ser Glu Ala
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Ser Phe Asp Phe Val Ala Leu Asn Leu Thr Gly Phe Val Ala Tyr Ser
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                                         -20
gta ttc aac atc ggc ctc ctc tgg gtg ccc twc wtc daa gga gca gtt
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Val Phe Asn Ile Gly Leu Leu Trp Val Pro Xaa Xaa Xaa Gly Ala Val
                                    -5
                -10
                                                                      315
tot cot caa ata coc caa cgg agt gaa coc cgt gaa cag caa cga cgt
Ser Pro Gln Ile Pro Gln Arg Ser Glu Pro Arg Glu Gln Gln Arg Arg
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388	
Phe His Glu Ile His Ser Thr Gly Ser Glu Pro Pro Leu Leu Ile Met 80 85 90	
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Ile Gly Tyr Ser Asp Gly Met Gln Val Trp Ser Ile Pro Ile Xaa Gly	
95 100 105 110	
gaa sac aag agc tet tet etg tte gac atg gee caa tte gag egg eta	447
Glu Xaa Lys Ser Ser Ser Leu Phe Asp Met Ala Gln Phe Glu Arg Leu	
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Arg Lys Pro Ser Ser Ala Gln Gln Lys Ala Ala Leu Leu Xaa Asn	
10 15 20 25	
aac acc gcc ttg cag tcc gtt tct ctt cga agt aag aca acc atc cgg	329
Asn Thr Ala Leu Gln Ser Val Ser Leu Arg Ser Lys Thr Thr Ile Arg	
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attgtctaca caggaagctg gaaagatgac aag atg aat ggt ttt gga aga ctt	294
Met Asn Gly Phe Gly Arg Leu	
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gag cat ttt tca gga gca gta tat gaa gga caa ttt aag gat aat atg	342
Glu His Phe Ser Gly Ala Val Tyr Glu Gly Gln Phe Lys Asp Asn Met 10 15 20	
10 15 20 ttt cat gga ctg ggg act tac aca ttc cca aat ggg gca aag tat act	390
Phe His Gly Leu Gly Thr Tyr Thr Phe Pro Asn Gly Ala Lys Tyr Thr	550
25 30 35	
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Gly Ile	

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                                                                      105
Ile Ala Lys Thr His Glu Asp Ile Glu Ala Gln Ile Arg Glu Ile Gln
                        10
qqc aag aag gca gct ctt gat gaa gct caa gga gtg ggc ctc gat tct
                                                                      153
Gly Lys Lys Ala Ala Leu Asp Glu Ala Gln Gly Val Gly Leu Asp Ser
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                                        30
aca ggt tat tat gac cag gaa att tat ggt gga agt gac agc aga ttt
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Thr Gly Tyr Tyr Asp Gln Glu Ile Tyr Gly Gly Ser Asp Ser Arg Phe
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gct gga tac gtg aca tca att gct gca act gaa ctt gaa gat gat gac
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Ala Gly Tyr Val Thr Ser Ile Ala Ala Thr Glu Leu Glu Asp Asp Asp
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gat gac tat toa tot acg agt ttg ctt ggt cag aag aag cca gga
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Asp Asp Tyr Ser Ser Ser Thr Ser Leu Leu Gly Gln Lys Lys Pro Gly
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                            75
                                                80
tat cat gcc cct gtg gca ttg ctt aat gat ata cca cag tca aca gaa
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Tyr His Ala Pro Val Ala Leu Leu Asn Asp Ile Pro Gln Ser Thr Glu
                        90
cag tat gat cca ttt gct gag cac aga cct cca aag att gca gac cgg
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Gln Tyr Asp Pro Phe Ala Glu His Arg Pro Pro Lys Ile Ala Asp Arg
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gaa gat gaa tac aaa aag cat agg cgg acc atg ata att tcc cag agc
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Glu Asp Glu Tyr Lys Lys His Arg Arg Thr Met Ile Ile Ser Gln Ser
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ggccaag atg ccg atc aat aaa tca gag aag cca gaa agc tgc gat aat
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        Met Pro Ile Asn Lys Ser Glu Lys Pro Glu Ser Cys Asp Asn
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                                                                      217
Val Lys Val Val Val Arg Cys Arg Pro Leu Asn Glu Arg Glu Lys Ser
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Met Cys Tyr Lys Gln Ala Val Ser Val Asp Glu Met Arg Gly Thr Ile
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                                    40
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cct ggg gag gac aga ttc aaa cct gtg gta cca tgg cct cat gtt gaa
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Pro Gly Glu Asp Arg Phe Lys Pro Val Val Pro Trp Pro His Val Glu
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gtt tcc aag agc aac aag aaa cga ata aat ctc tgt aat ggt ttc tgg
                                                                      158
Val Ser Lys Ser Asn Lys Lys Arg Ile Asn Leu Cys Asn Gly Phe Trp
                                                                      181
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Asn Glu Lys Ile Lys Asn Arg
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att tgt tta ctt tgt tta tgg tat ctt aat cta tac aaa ttc tca att Ile Cys Leu Leu Cys Leu Trp Tyr Leu Asn Leu Tyr Lys Phe Ser Ile 35 40 45	206
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Phe	Glu	Val	Asn	Ser 30	ttg Leu	Gln	Lys	Ser	Asn 35	Trp	Gly	Phe	Leu	Leu 40	Thr	148
Gly	Leu	Val	Gly 45	Gly	acc Thr	Leu	Val	Ala 50	Val	Tyr	Ala	Val	Ala 55	Thr	Pro	196
Phe	Val	Thr 60	Pro	Ala	ctt Leu	Arg	Lys 65	Val	Cys	Leu	Pro	Phe 70	Val	Pro	Ala	244
Thr	Met 75	Lys	Gln	Ile	gaa Glu	Asn 80	Val	Val	Lys	Met	Leu 85	Arg	Cys	Arg	Arg	292
Gly 90	Ser	Leu	Val	Asp	atc Ile 95	Gly	Ser	Gly	Asp	Gly 100	Arg	Ile	Val	Ile	Ala 105	340
gct Ala	gcg Ala	aag Lys	aaa Lys	999 Gly 110	ttc Phe	ama Xaa	gca Ala	gtt Val	ggt Gly 115	tat Tyr	gaa Glu	tta Leu	aac Asn	cca Pro 120	tgg Trp	388
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tgg Trp	aga Arg 30	aga	caa Gln	cct Pro	gaa Glu	gct Ala 35	gtt	cam Xaa	ctt Leu	ctt Leu	gat Asp 40	aag Lys	att Ile	ttg Leu	aag Lys	146
Lys 45	cac His	Lys	Pro	Asp	ttc Phe 50	Ile	Ser	Leu	Phe	Lys 55	Asn	Pro	Pro	Lys	Asn 60	194
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393

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Ile Gln Gly	_		_		-				
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Glu Ala Phe									330
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					105				206
gtt gag ctt									386
Val Glu Leu	Leu Leu	_	Glu His	Gln Gln		Phe	Pro	Gly	
110		115			120				
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Leu Thr Arg	Gly Leu	Val Ala	Val Leu	Leu Tyr	Trp Asp	Gly	Lys	Arg	
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Cys Ile Ala							23		
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atttcctgcc tgacttcttg ggaggtgggt ctttgcggcc gatcgcgctc ctgggggtgt	eggetgtt gaggtgac atccacga gggteteg gagetggg	ct accect ge aaacag ct ttegea ge eteetg ga agtteg	cccc cto	ccccgcgt cgttgccc gccatttt ggtgactg cggatgcg	cggcctg tccgcgt cctgcct cgggagg tgtgggg	mct g atc d gtg a cga d ttg d	getgi eeete agggi eggag etgei	tegteg caccac tggaca gtgett teagte	120 180 240 300
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atttcctgce tgacttcttg ggaggtgggt ctttgcggcc gatcgcgctc ctgggggtgt tgtaacggca gag gtt cca Glu Val Pro 15 gag gaa gaa Glu Glu Glu 30 ttc aga tct Phe Arg Ser 45 tta att agt Leu Ile Ser cct aaa ctt Pro Lys Leu	cggctgtt gaggtgac atccacga gggtctcg gagctggg ggaaag a	ct accect gc aaacag ct ttegca gc ctcctg ga agtteg tg aat gg et Asn Gl att ccc Ile Pro gtc ttc Val Phe 35 ttg gct Leu Ala 50 ata ctt Ile Leu gct tgt Ala Cys	cccc ctc cccc gtc agtg ccc g agg gc g agg gc y Arg A 5 cac ata His Ile 20 gca gaa Ala Glu gca aca Ala Thr tca agt Ser Ser atc atg Ile Met 85 gag aaa	geccegegt gettgece gecatttt ggtgactg ggatgeg et gat ti la Asp Pi ggg cet Gly Pro tge aat Cys Asn agt atg Ser Met 55 cat cee His Pro gga tac Gly Tyr tte aag	cggcctg tccgcgt cctgcct cgggagg tgtgggg tt cga g ne Arg G gat tac Asp Tyr 25 gat gaa Asp Glu 40 ttg att Leu Ile aaa tat Lys Tyr ttt gct Phe Ala	atc of get	cettgicetcagggicetgcicg according to Asion Control Con	tegteg caccac teggaca gtgett teagte at gea sn Ala aca Thr tegg Trp gga Gly 60 atc Ile ctt Leu tcc	120 180 240 300 360 412 460 508 556
atttectgee tgacttettg ggaggtgggt ctttgeggee gategegete ctgggggtgt tgtaacggea gag gtt cca Glu Val Pro 15 gag gaa gaa Glu Glu Glu 30 tte aga tet Phe Arg Ser 45 tta att agt Leu Ile Ser cct aaa ett Pro Lys Leu tet tat gtg	cggctgtt gaggtgac atccacga gggtctcg gagctggg ggaaag a	ct accect gc aaacag ct ttegca gc ctectg ga agtteg tg aat gg et Asn Gl att ccc Ile Pro gtc ttc Val Phe 35 ttg gct Leu Ala 50 ata ctt Ile Leu gct tgt Ala Cys tgc caa Cys Gln	cccc ctc cccc gtc agtg ccc g agg gc g agg gc y Arg A 5 cac ata His Ile 20 gca gaa Ala Glu gca aca Ala Thr tca agt Ser Ser atc atg Ile Met 85 gag aaa	geccegegt gettgece gecatttt ggtgactg ggatgeg et gat ti la Asp Pi ggg cet Gly Pro tge aat Cys Asn agt atg Ser Met 55 cat cee His Pro gga tac Gly Tyr tte aag	cggcctg tccgcgt cctgcct cgggagg tgtgggg tt cga g ne Arg G gat tac Asp Tyr 25 gat gaa Asp Glu 40 ttg att Leu Ile aaa tat Lys Tyr ttt gct Phe Ala	atc of get	cettgicetcagggicetgcicg according to Asion Control Con	tegteg caccac teggaca gtgett teagte at gea sn Ala aca Thr tegg Trp gga Gly 60 atc Ile ctt Leu tcc	120 180 240 300 360 412 460 508 556
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atg tcc aaa ctc atc aac ttg tat aca tca rat atg tgc aat tta ctg
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Met Ser Lys Leu Ile Asn Leu Tyr Thr Ser Xaa Met Cys Asn Leu Leu
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tmt atc cac cty mtc tym ata agc tgt tta ant aat aar rta aca
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Xaa Ile His Leu Xaa Xaa Ile Ser Cys Leu Xaa Asn Asn Lys Xaa Thr
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Leu
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                   Met Tyr Gly Lys Gly Lys Ser Asn Ser Ser Ala
gto deg too gad ago dag ged egg gag aag tta gea etc tad gta tat
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Val Pro Ser Asp Ser Gln Ala Arg Glu Lys Leu Ala Leu Tyr Val Tyr
                                20
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gaa tat ctg ctc cat gta gga gct cag aaa tca gct caa aca ttt tta
Glu Tyr Leu Leu His Val Gly Ala Gln Lys Ser Ala Gln Thr Phe Leu
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tca gag ata aga tgg gaa aaa aac atc aca ttg ggg gaa cca cca gga
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Ser Glu Ile Arg Trp Glu Lys Asn Ile Thr Leu Gly Glu Pro Pro Gly
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                                            55
ttc tta cat tct tgg tgg tgt gta ttt tgg gat ctc tac tgt gca gct
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Phe Leu His Ser Trp Trp Cys Val Phe Trp Asp Leu Tyr Cys Ala Ala
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cca gag aga cgt gaa aca tgt gaa cac tca agt gaa gca aaa gcc ttc
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Pro Glu Arg Arg Glu Thr Cys Glu His Ser Ser Glu Ala Lys Ala Phe
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cat gat tac agt gct gca gct ccc agt cca gtg cta gga aac att
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His Asp Tyr Ser Ala Ala Ala Pro Ser Pro Val Leu Gly Asn Ile
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ctg ctt ttg att ggc gac tca ggc gtg ggc aag tca tgc ctg ctc ctg Leu Leu Leu Ile Gly Asp Ser Gly Val Gly Lys Ser Cys Leu Leu Leu 15 20 25	160
cgg ttt gct gat gac acg tac aca gag agc tac atc agc acc atc ggg Arg Phe Ala Asp Asp Thr Tyr Thr Glu Ser Tyr Ile Ser Thr Ile Gly 30 35 40	208
gtg gac ttc aag atc cga acc atc gag ctg gat ggc aaa act atc aaa Val Asp Phe Lys Ile Arg Thr Ile Glu Leu Asp Gly Lys Thr Ile Lys 45 50 55	256
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tcc agc tac tac cgg ggg gct cat ggc atc atc gtg gtg tat gac gtc Ser Ser Tyr Tyr Arg Gly Ala His Gly Ile Ile Val Val Tyr Asp Val 75 80 85 90	352
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aag tca tca act gcc aac caa ggg gac ggg gat gaa gaa nct gtt ggg	401

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218

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Val Gly Glu Ile Ser Ser Ser Lys Pro Ala Ile Ser Asn Ile Leu Asn 55 aga gtt aac ccc agc tca tat tca agg gga cta aag aat ggt gca ctc 362

Arg Val Asn Pro Ser Ser Tyr Ser Arg Gly Leu Lys Asn Gly Ala Leu 70 410 agt cga ggt att act gct gca ttc aag cct aca agt caa cac tac acg

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Met Ala Leu His Val Pro Lys Ala Pro Gly Phe Ala	_
1 5 10	_
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Gln Met Leu Lys Glu Gly Ala Lys His Phe Ser Gly Leu Glu Glu Ala 15 20 25	
gtg tat aga aac ata caa gct tgc aag gag ctt gcc caa acc act cgt 20	7
Val Tyr Arg Asn Ile Gln Ala Cys Lys Glu Leu Ala Gln Thr Thr Arg	
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45 50 55 60	
gag aag ttg ttt gtg aca aac gat gca gca act att tta aga gaa cta 30	3
Glu Lys Leu Phe Val Thr Asn Asp Ala Ala Thr Ile Leu Arg Glu Leu	
65 70 75 gaa gta cag cat cct gct gca aaa atg att gta atg gct tct cat atg 35	,
Glu Val Gln His Pro Ala Ala Lys Met Ile Val Met Ala Ser His Met	-
80 85 90	
caa gag caa gaa gtt gga gat ggc aca aac ttt gtt ctg gta ttt gct 39	9
Gln Glu Gln Glu Val Gly Asp Gly Thr Asn Phe Val Leu Val Phe Ala	
95 100 105	

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actttcccgg tccccagtat accataattg aagaaaa atg atg gaa gag agt gga 175
Met Met Glu Glu Ser Gly

5

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11e Glu Thr Thr Pro Pro Gly Thr Pro Pro Pro Asn Pro Ala Gly Leu

10 15

gct gct act gct atg tct tct acc cct gtt cca tta gcg gca acc agt 271
Ala Ala Thr Ala Met Ser Ser Thr Pro Val Pro Leu Ala Ala Thr Ser
25 30 35

tct ttt tct tct cca aat gta tcc tcc atg gag tcc ttc cca cca ctc 319
Ser Phe Ser Ser Pro Asn Val Ser Ser Met Glu Ser Phe Pro Pro Leu

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20 25 30	1 4 4
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Met Lys Leu Met Val Leu Met Leu Ala Ala	Leu Leu His Cys
-15 -10	-5
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Tyr Ala Asp Ser Gly Cys Lys Leu Leu Glu Asp	Met Val Glu Lys Thr
1 5	10
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Ile Asn Ser Asp Ile Ser Ile Pro Glu Tyr Lys	
15 20 25	30
ttc ata gac agt gat gcc gct gca gag gct atg	ggg aaa ttc aag cag 251
Phe Ile Asp Ser Asp Ala Ala Ala Glu Ala Met	45
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Cys Phe Leu Asn Gln Ser His Arg Thr Leu Lys	Asn Phe Gly Len Met
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Met His Thr Val Tyr Asp Ser Ile Trp Cys Asn	Met Lys Ser Asn
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Gly Pro Ser Gly Cys Leu Val Pro Ala Phe Gly Leu Arg Leu Leu	
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Ala Thr Val Leu Gln Ala Val Ser Ala Phe Gly Ala Glu Phe Ser Ser -5 1 5	
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Glu Ala Cys Arg Glu Leu Gly Phe Ser Ser Asn Leu Leu Cys Ser Ser	
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Cys Asp Leu Leu Gly Gln Phe Asn Leu Leu Gln Leu Asp Pro Asp Cys	
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Phe Gly Leu Arg Glu Phe Ser Gln Ile Arg Tyr Asp Ala Val Lys Ser	327

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-15

PCT/IB99/00712 WO 99/53051 409

409	
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gga ccc agg gaa ctg gaa gcc agc aaa gtt gtc ctc ctg ccc agt tgt Gly Pro Arg Glu Leu Glu Ala Ser Lys Val Val Leu Leu Pro Ser Cys 15 20 25 30	144
ccc gga gct cca gga agt cct ggg gag aag gga gcc cca ggt cct caa Pro Gly Ala Pro Gly Ser Pro Gly Glu Lys Gly Ala Pro Gly Pro Gln 35 40 45	192
ggg cca cct gga cca cca ggc aag atg ggc ccc aag ggt gag cca gga Gly Pro Pro Gly Pro Gly Lys Met Gly Pro Lys Gly Glu Pro Gly 50 55 60	240
gat cca gtg aac ctg ctc cgg tgc cag gaa ggc ccc aga aac tgc cgg Asp Pro Val Asn Leu Leu Arg Cys Gln Glu Gly Pro Arg Asn Cys Arg 65 70 75	288
gag ctg ttg agc agg gcg cca cct tgageggetg gtamcatctg tgcctacctg Glu Leu Leu Ser Arg Ala Pro Pro 80 85	342
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aat cca tca tct ccc tat aca aat agt tcc cga aaa caa cct atg agt Asn Pro Ser Ser Pro Tyr Thr Asn Ser Ser Arg Lys Gln Pro Met Ser 1 5 10 15	154
gca aca ctt aga gaa aga tta agg aaa aca aga ttt tca ttt aat tcc Ala Thr Leu Arg Glu Arg Leu Arg Lys Thr Arg Phe Ser Phe Asn Ser 20 25 30	202
tct nac aat gtg gtg aac gtc tta aag tagagagtga agaaaatgat Ser Xaa Asn Val Val Asn Val Leu Lys 35 40	249
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20

WO 99/53051	4	113	PC1/1B99/00
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aga gct ccg gca aaa cct Arg Ala Pro Ala Lys Pro 45	cca ggt agt gg	y Leu Asp Leu A	get gat get 304
itg gat gat caa gat gat Leu Asp Asp Gln Asp Asp 60	ggc cgc aga aa	c cgg gta tagga	
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gag gac gac ttc aac tat Glu Asp Asp Phe Asn Tyn -40 -35	Gly Ser Ser Va		
atc cga atg gcc ttt ctg Tle Arg Met Ala Phe Let -20		r Ser Ile Leu S	
gtt ctc tta act aca gtg Val Leu Leu Thr Thr Val -5			
ta cgg aca ttt gta cat al Arg Thr Phe Val His			
etc gga tct ctg ggt ttg Leu Gly Ser Leu Gly Leu 25 30	g att ttt gcg tt	g ayt tta aac a	
at ccc ctt aac ctg tac Tyr Pro Leu Asn Leu Ty:		a ttt acg ctg t	tg gaa gct 399
ctg act gtg gca gtt gt Geu Thr Val Ala Val Val	gtt act gtt ct		
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-50

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-40	ac ttc tcc cta gct gtg	~ -
Arg Arg Asn Gly Val As	sn Phe Ser Leu Ala Val	J-J J J
	gc gct ggg ctg ctg gtg ly Ala Gly Leu Leu Val 1	
	gg gtc ctg gag atg tat	ttc ctc aat gac act 356
	rg Val Leu Glu Met Tyr 15	
ctq qcq qct gag gac ag	ge eeg tee tte tee ttg	ctg cag tca gca cac 404
	er Pro Ser Phe Ser Leu 30	
cct gga gaa cac ctg go	ct cag ggt gca tcg agg	ctg cag tcc tgc agg 452
Pro Gly Glu His Leu A	la Gln Gly Ala Ser Arg	
40 45		55
	cc gcg tca sca tgagcact	tg ctgcagcggg 499
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	-55	-50
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Gln Asp Pro Ser Arg A: -45	rg Glu Arg Leu Gln Ala -40	Leu Arg Lys Glu Lys -35
	gc tcc cgc cgg gga aaa	
Ser Arg Asp Ala Ala A:	rg Ser Arg Arg Gly Lys -25	Glu Asn Phe Glu Phe -20
	tg ttg cct ctt cct gca	
-	eu Leu Pro Leu Pro Ala	
	-5	1
ctc gac aag gca tcc a	to att cga ctt aca att	age tat etg aaa atg 245
Leu Asp Lys Ala Ser I.	le Ile Arg Leu Thr Ile 10	15
	ag ggg gac cct ccg tgg	
Arg Asp Phe Ala Asn G	ln Gly Asp Pro Pro Trp	Asn Leu Arg Met Glu
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35	40	45
aga age eee agt gea e	ta gcc att gaa gta ttt eu Ala Ile Glu Val Phe	gaa gca cat ttg gga 389
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50 5:		

410	
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ctg tct gtc tgt tcc acg gat gta acc aca gca cac gcg tgg ctc acg Leu Ser Val Cys Ser Thr Asp Val Thr Thr Ala His Ala Trp Leu Thr -10 -5 1 5	159
gta cta gtg tgataaatgc ttgttacatg aaggcgtgaa cagggatgag Val Leu Val	208
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ctg tct gtc tgt tcc acg gat gta acc aca gca cac gcg tgg ctc acg	159

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- 5
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 Val Leu Val
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                                                                    180
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                                                                    240
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 gagggagca atg gtg ggg cga gtg agg gtc tgc cgt aaa tat ccc ccg acc
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          Met Val Gly Arg Val Arg Val Cys Arg Lys Tyr Pro Pro Thr
                              -40
                                                                    339
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 Thr Leu Trp Glu Gly Ala Arg Gly His Arg Gln Ile Ser Val Ser Pro
                        -25
 387
 Trp Asn Ile Cys Cys Ala Ala Ala Ala Ala Ala Ala Gly Ser Arg
 -15
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cgg ctg ggg acc cct cag caa atc gcc att gct cgc gag ggt gac c Arg Leu Gly Thr Pro Gln Gln Ile Ala Ile Ala Arg Glu Gly Asp Le -30 -25 -20	
ctg acc aag gag cgg ctg tgc tgt ggc ctg tcc atg ttc gag gtc acc Leu Thr Lys Glu Arg Leu Cys Cys Gly Leu Ser Met Phe Glu Val II	
ctg acc cgc att cgg agc tac ctg cag gac ccc atc tgg cgg ggc cc Leu Thr Arg Ile Arg Ser Tyr Leu Gln Asp Pro Ile Trp Arg Gly P	
ccg ccc acc aat ggc gtc atg cac gtc gat gag tgt gtg gag ttc cc Pro Pro Thr Asn Gly Val Met His Val Asp Glu Cys Val Glu Phe H	is
cgg ctg tgg agc gcc atg cag ttc gtg tac tgc atc cct gtg gga ac Arg Leu Trp Ser Ala Met Gln Phe Val Tyr Cys Ile Pro Val Gly T	cc 346
aac gag ttc aca gct gag cag tgt ttc ggc gat ggc ttg aac tgg ga Asn Glu Phe Thr Ala Glu Gln Cys Phe Gly Asp Gly Leu Asn Trp A	
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tct atc ctg tgt aac tac aag gcc atc gaa atg ccc tca cac cag ac Ser Ile Leu Cys Asn Tyr Lys Ala Ile Glu Met Pro Ser His Gln Tl -50 -45 -40	cc 153 hr
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Ile Ser Leu Arg Asp Trp Met Leu Ala Val Leu Ala Phe Leu Leu Gly
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His His Leu Gly Leu Pro Ala Ser Gln Pro Leu Pro Gly Ile Leu Ser
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Arg Ala Pro Ser Leu Pro Pro Arg Ser Pro Ala Thr Arg Ser Arg Val
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Ser Ser Pro Trp Gly Glu Ser Ser Ser Leu Leu Phe Pro Asp Cys
                                    -25
cac att tot tit cca got otg acc ggg agt cag etc etc ggg gat acc
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His Ile Ser Phe Pro Ala Leu Thr Gly Ser Gln Leu Leu Gly Asp Thr
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15 20 25

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45

Leu Phe Val Tyr Phe Leu Pro

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tct att tat cct cct ccc tcc cca gta gaa awa aaa aaa atc ttt aca Ser Ile Tyr Pro Pro Pro Ser Pro Val Glu Xaa Lys Lys Ile Phe Thr 25 30 35	150
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gcc ctc cat ggg ggg atg aag aca ctg ctg cca tgg aca gcc cgt gcc Ala Leu His Gly Gly Met Lys Thr Leu Leu Pro Trp Thr Ala Arg Ala 10 15 20	283
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161

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30

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5

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cgg gag aag ctg aca ccc gag caa ctg cat tcc atg cgg cag gcg gag 269 Arg Glu Lys Leu Thr Pro Glu Gln Leu His Ser Met Arg Gln Ala Glu 35

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50

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Met Ser S	
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gat gat aaa agt aaa toa aat gac coc aag act gag coc aag aac tg	ac 225
Asp Asp Lys Ser Lys Ser Asn Asp Pro Lys Thr Glu Pro Lys Asn Cy	•
5 10 15	-
gat ccc aag tgt gaa caa aag tgt gag tcc aaa tgc cag ccc agc tg	at 273
Asp Pro Lys Cys Glu Gln Lys Cys Glu Ser Lys Cys Gln Pro Ser Cy	
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Leu Lys Lys Leu Leu Gln Arg Cys Phe Glu Lys Cys Pro Trp Glu Ly	rs
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Cys Pro Ala Pro Pro Lys Cys Leu Pro Cys Pro Ser Gln Ser Pro Se	r
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70 75 80	
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Ser His Ala Arg Arg Arg Val Phe Val Val Thr Pro Cys Cys His Le	eu.
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Phe Ser Ser Leu Cys Glu Asp Leu Asp Trp Gln	
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429

429	
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Ala Lys Met Met Ser Ala Ala Ala Ile Ala Asn Gly Gly Val Ala	
65 70 75 80	
tog ggc agc ott gtg got act otg cag toa otg gga gca act gga otc	409
Ser Gly Ser Leu Val Ala Thr Leu Gln Ser Leu Gly Ala Thr Gly Leu	
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Met Tyr Ile Gln Cys Cys Glu Trp	
1 5	
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Leu Gln Ser Trp Arg Ser Lys Asp Glu Phe Cys Leu Glu Glu Ser Gly	
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Lys Ala Ser Trp Arg Arg Glu Gln Trp His Gly Pro Xaa Xaa Val Arg	200
	054
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Ser Phe Gln Phe Ile Pro Phe Lys His Cys Ser His Val Ala Phe Lys	
45 50 55	
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His Ser Ile Val Leu Ala Val Thr Gln Ala His Ser Ala Lys Gly Ser	
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Met Val Gly Val Ser Val Cys 1 5	
cat cac att cga gtg ggg att aag aga agg aag gct gcc ttg ctg gag	220
His His Ile Arg Val Gly Ile Lys Arg Arg Lys Ala Ala Leu Leu Glu	
10 15 20	
ctg tgt ggt ctt ctc caa gtg aga gtc gca ggc aat aga act act ttg	268
Leu Cys Gly Leu Leu Gln Val Arg Val Ala Gly Asn Arg Thr Thr Leu	
25 30 35 ctt ttg gag gaa aag mgg aat tca ttt tca gca nnc acr aga aaa gca	316
Leu Leu Glu Glu Lys Arg Asn Ser Phe Ser Ala Xaa Thr Arg Lys Ala	310
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432

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Pro Arg Asp Ser Gly Val Val Pro Val Gly Thr Glu Glu Ala Pro Lys
gac aca aaa tat ata tca aat ggc gac att tgg aac aac agc tgg ttt
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Asp Thr Lys Tyr Ile Ser Asn Gly Asp Ile Trp Asn Asn Ser Trp Phe
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Leu Trp Asn Ile Leu Lys Leu Pro Val Gln Thr Leu Leu Gln Gly
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Glu Ser Lys Pro Phe Thr Cys Leu Asp Gly Ser Ala Thr Ile Pro Phe
Asp Gln Val Asn Asp Asp Tyr Cys Asp Cys Lys Asp Gly Ser Asp Glu
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Ile Pro Gly Gly Leu Gly Asp Arg Ala Pro Leu Thr Ala Thr Ala Pro
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Gln Leu Asp Asp Glu Glu Met Tyr Ser Ala His Met Pro Ala His Leu
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                               25
Arg Cys Asp Ala Cys Arg Ala Val Ala Tyr Gln Val Ser Pro Ser Pro
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Leu Ser Pro Ala Leu Leu Thr Pro Leu Leu Lys Pro Ala Pro Thr Gly
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Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Thr Ser
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His Ile Ile Asn Ile Phe Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys
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Pro Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln
             15
                             20
Ser Ile Gly Ser Tyr Leu Asn Trp Tyr Gln His Lys Pro Gly His Ala
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Ala Arg Phe Ser
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-15 -10 -5
Ala Gly Arg Arg Ser Pro Xaa Thr Pro Asp Glu Ser Thr Pro Pro Pro
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Arg Lys Lys Lys Asp Ile Arg Asp Tyr Asn Asp Ala Asp Met Ala
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Ser Thr Tyr Glu Met His Trp Ile Arg Gln Ala Pro Gly Lys Gly Pro
Glu Trp Val Xaa Tyr Val Ser Gly Gly Gly Gly Thr Xaa Xaa Asn Ala
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Xaa Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Asn Ser
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Pro Gly Thr Ser Leu Thr Leu Ser Cys Ala Gly Ser Gly Phe Ser Phe
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Ser Asp Tyr Gly Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
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Glu Trp Val Ala Val Ile Ser His Asp Gly Asn Asn Lys Tyr Tyr Gly
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Gly Ser Met Lys Gly Arg Val Thr Ile Ser Arg Asp Asn Ser Arg His
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Thr Val Ser Leu Gln Met Ser Ser Leu Gly Pro Glu Asp Thr Ala Val
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Pro Ser Gly Thr Leu Ser Leu Thr Cys Thr Val Xaa Gly Xaa Xaa Ile
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Tyr Tyr Cys Ala Thr Ile Arg Leu Pro Val Val Leu Phe Phe Ala Ala
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Pro Arg Xaa Thr Val Thr Leu Thr Cys Gly Ser Ser Ile Gly Ala Val
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Thr Asn Gly His Phe Pro Tyr Trp Phe Gln Gln Lys Pro Gly Gln Ala Pro Arg Thr Leu Ile Ser Asp Thr Phe Asn Arg Gln Ser Ser Thr Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys Ala Val Leu Thr Leu 70 Ser Asp Ala Gln Pro Asp Asp Glu Ala Glu Tyr Tyr Cys Val Leu Ser 85 Tyr Ser Gly Gly Arg Pro Val Phe Gly Gly Gly Thr Lys Leu Thr Val 100 Leu Ser Gln 110 <210> 828 <211> 25 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -21..-1 <400> 828 Met Gln Ala Cys Met Val Pro Gly Leu Ala Leu Cys Leu Leu Gly -15 Pro Leu Ala Gly Ala Lys Pro Val Gln 1 <210> 829 <211> 79 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -23..-1 <400> 829 Met Pro Ser Tyr Lys Val Cys Gly Val Phe Cys Leu Phe Val Cys Leu -20 -15 -10 Phe Leu Ser Gln Ser Phe Ala Phe Val Leu Gln Ala Gly Val Gln Trp ~ 5 1 Arg Asp Leu Cys Ser Leu Gln Pro Gln Leu Pro Arg Phe Gly Pro Ser 20 Ser Cys Leu Ser Leu Pro Ser Gly Trp Asp Cys Arg Arg Pro Pro Pro 30 35 Arg Leu Ala Asn Ser Cys Val Phe Gly Gly Asp Gly Val Ser Pro 50 <210> 830 <211> 59 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -21..-1 <400> 830 Met Gly Thr Gln Glu Gly Trp Xaa Leu Leu Cys Leu Ala Leu Ser -15 -10 Gly Ala Ala Glu Thr Lys Pro His Pro Ala Glu Gly Gln Trp Arg Ala 1 5

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Tyr Thr Leu Ala Arg Asp Thr Thr Val Lys Pro Gly Ala Lys Lys Asp
1 5 10

Thr Lys Asp Ser Arg Pro Lys Leu Pro Gln Thr Leu Ser Arg Gly Trp
15 20 25

Gly Asp Gln Leu Ile Trp Thr Gln Thr Tyr Glu Glu Ala Leu Tyr Lys 30 35 40

Ser Lys Thr Ser Asn Lys Pro Leu Met Ile Ile His His Leu Asp Glu 45 50 55 60

Cys Pro His Ser Gln Ala Leu Lys Lys Val Phe Ala Glu Asn Lys Glu 65 70 75

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Thr Thr Asp 95

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Gly Phe Ser Ser Phe Pro Gly Val Asp Ser Ser Ser Ser Phe Ser Ser 15 20 25

Ser Ser Arg Ser Gly Ser Ser Ser Ser Arg Ser Leu Gly Ser Gly Gly 30 35 40

Ser Val Ser Gln Leu Phe Ser Asn Phe Thr Gly Ser Val Asp Asp Arg 50 55 60

Gly Thr Cys Gln Cys Ser Val Ser Leu Pro Asp Thr Thr Phe Pro Val 65 70 75

Asp Arg Val Glu Arg Leu Glu Phe Thr Ala His Val Leu Ser Gln Lys 80 85 90

Phe Glu Lys Glu Leu Ser Lys

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Leu Val Ala Ala Pro Arg Trp Val Arg Ser Gln Val Gln Leu Xaa Glu
-10 -5 1 5

Ser Gly Pro Gly Leu Val Lys Pro Ser Gly Thr Leu Ser Leu Ile Cys

441 15 Gly Val Ser Gly Asp Ser Val Thr Ile Ser Gly Trp Trp Ser Trp Val 30 Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile Ser Glu Ile Asp His 45 Gly Gly Asn Thr Asn Tyr Asn Pro Ser Leu Lys Ser Arg Val Xaa Ile 65 Ser Leu Asp Lys Ser Lys Asn Lys Phe Ser Leu Arg Leu Thr Ser Val 80 Thr Ala Ala Asp Thr Ala Met Tyr Xaa Cys Ala Arg Gly Gly Ala Xaa 95 100 Ser Ser Ser Ala Phe Asp Val Trp Gly Leu Xaa Thr Met Val Ile Ile 110 Ser Ser Ala 120 <210> 836 <211> 139 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -19...-1 <400> 836 Met Asp Ile Leu Cys Ser Thr Leu Leu Leu Leu Thr Val Pro Ser Trp -15 -10 -5 Val Leu Ser Gln Val Thr Leu Xaa Glu Ser Gly Pro Ala Leu Val Lys Ala Thr Gln Thr Leu Arg Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu 15 20 Ser Thr Asn Arg Met Arg Val Ser Trp Ile Arg Gln Pro Pro Gly Lys 40 30 35 Ala Leu Glu Trp Leu Ala Arg Ile Asp Trp Asp Asp Tyr Lys Arg Tyr 55 Ser Thr Ser Leu Lys Thr Arg Val Thr Ile Ser Lys Asp Thr Ser Lys 70 Asn Gln Val Ile Leu Thr Met Thr Asn Val Asp Pro Ala Asp Thr Ala 85 Thr Tyr Tyr Cys Ala Arg Leu Ser Thr Ala Ala Thr Pro Gln Phe Phe 95 100 105 Asp Phe Trp Gly Gln Gly Val Leu Val Ser Val 115 <210> 837 <211> 139 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -19..-1 <400> 837 Met Xaa His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp -15 -10 Val Leu Ser Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Xaa Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Asp Ser Ile 25 20 Ser Ser Tyr Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu

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Glu Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro 55 Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln 70 Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr 85 Tyr Cys Ala Arg Xaa Leu Xaa Tyr Tyr Asp Arg Ser Gly Tyr Phe Arg 100 105 Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Trp Ser 115 <210> 838 <211> 136 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -19..-1 <400> 838 Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp -15 -10 Val Leu Ser Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile 20 Asp Ser Gly Asn Tyr Tyr Trp Ser Trp Ile Arg Gln Pro Ala Gly Lys 35 Gly Leu Glu Trp Ile Gly Arg Ile Tyr Ser Thr Gly Ser Thr Asn Tyr **5**5 50 Asn Pro Ser Leu Ser Ser Arg Val Gln Ile Ser Leu Asp Thr Ser Lys 70 Asn Leu Leu Ser Leu Asn Leu Thr Ser Val Thr Ala Ala Asp Thr Ala 85 Val Tyr Phe Cys Ala Arg Thr Phe Pro Phe Tyr Trp Tyr Leu Asp Leu 100 105 Trp Gly Arg Gly Ile Leu Val Thr 110 115 <210> 839 <211> 143 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -19..-1 <400> 839 Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp -15 -10 Val Leu Ser Gln Val Gln Leu Gln Glu Ser Gly Pro Arg Leu Val Lys Pro Ser Gln Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Gly Gly Tyr Phe Trp Ser Trp Ile Arg Gln His Pro Gly Arg Gly Leu Glu Trp Ile Gly Tyr Ile Tyr Tyr Asn Trp Ser Thr Tyr Tyr 55 Asn Pro Ser Leu Arg Ser Arg Val Thr Met Ser Met Asp Thr Ser Lys 70 Asn Gln Phe Ser Leu Asn Leu Asn Ser Val Thr Ala Ala Asp Thr Xaa

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Val Leu Ser Gln Val Arg Leu Gln Glu Ser Gly Pro Arg Leu Val Lys
Pro Ser Glu Xaa Leu Ser Leu Thr Cys Ser Val Ser Gly Val Ser Val
                      20
Thr Asn Phe Phe Trp Asn Trp Ile Arg Lys Pro Pro Gly Lys Gly Leu
                  35
Glu Trp Leu Gly Tyr Met Ser Tyr Gly Val Ser Thr Asn Tyr His Pro
Ala Tyr Gln Ser Arg Val Ser Ile Ser Ile Asp Thr Trp
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                                 -10
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Pro Ser Glu Ala Leu Ser Leu Thr Cys Thr Val Ser Gly Val Ser Ser
                      20
Ser Asn Tyr Asp Trp Ser Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu
                  35
                                      40
Glu Trp Ile Gly Tyr Ile Asp Asp Ser Lys Asn Arg Gly Ser Thr Thr
               50
                                  55
Tyr Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Xaa Asp Thr Ser
                               70
Lys Xaa Gln Leu Ser Leu Arg Leu Thr Ser Val Thr Xaa Ala Asp Thr
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Ala Val Tyr Tyr Cys Ala Arg Lys Ser Ser Met His Ser Ser Gly Trp
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His Asn Arg Ser Leu Tyr Trp Tyr Phe Asp Pro
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Gly Pro Gly Leu Val Lys Pro Ser Gly Thr Leu Ser Leu Thr Cys Ala
                               15
Val Ser Gly Gly Ser Ile Ile Ser Ser Asn Trp Trp Ser Trp Val Arg
                           30
Gln Thr Pro Gly Lys Gly Leu Glu Trp Ile Gly Glu Ile Tyr Glu Asp
                       45
Gly Ile Thr Asn Tyr Asn Pro Ser Leu Lys Ser Arg Val Ile Ile Ser
                   60
                                       65
Val Asp Lys Ala Lys Asn Gln Phe Ser Leu Lys Met Arg Ser Val Thr
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               -15
Val Leu Ser Gln Val Gln Leu Gln Glu Ser Gly Ser Gly Pro Val Asp
Xaa Xaa Gln Thr Leu Xaa Leu Thr Cys Thr Xaa Ser Gly Val Ser Ile
Ser Ser Ser Asp Asn Cys Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys
                                      40
Gly Leu Glu Trp Ile Gly Tyr Ile Tyr His Ser Gly Gly Thr Tyr Tyr
               50
                                  55
Asn Pro Thr Leu Lys Ser Arg Val Thr Ile Ser Xaa Asp Arg Ile Arg
                               70
Asn Gln Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Xaa Asp Thr Ala
                           85
Val Tyr Xaa Cys Gly Arg Ala Gln Gly Arg Met Gly Ile Gly Thr Thr
                       100
                                           105
Ile Phe Asp Leu Trp Gly Gly Gly Gln Trp Ser Pro Ser Leu Gln Pro
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            -15
Ala His Ser Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
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Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Xaa Phe 20 Thr Xaa Xaa Ala Xaa His Trp Val Arg Gln Ala Pro Gly Gln Arg Leu Glu Trp Met Gly Trp Ile Asn Ala Ala Xaa Gly Xaa Thr Xaa Tyr Ser 55 Gln Xaa Phe Gln Xaa Arg Val Thr Xaa Thr Arg Asp Thr Ser Ala Ser 70 Thr Val Ser Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val 85 Tyr Phe Cys Ala Arg Asp Trp Glu Ile Ala Val Val Pro Thr Ala Ile 100 105 Asn Ser Tyr Gly Phe Asp Pro Gly Ala Arg Glu Pro 115 <210> 848 <211> 52 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -26..-1 <400> 848 Met Glu Ala Arg Val Glu Arg Ala Val Gln Lys Arg Gln Val Leu Phe -20 -15 Leu Cys Val Phe Leu Gly Met Ser Trp Ala Gly Ala Glu Pro Leu Arg ~5 Tyr Phe Val Ala Glu Glu Thr Glu Arg Gly Thr Xaa Leu Thr Asn Leu 10 15 Ala Lys Asp Leu 25 <210> 849 <211> 134 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -19..-1 Met Asp Trp Thr Trp Ser Ile Leu Phe Leu Val Ala Ala Ala Thr Gly **-15** . -10 Ala His Ser Gln Val Gln Leu Val Gln Ser Gly Gly Glu Val Lys Lys 5 Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe 20 Thr Arg Tyr Asp Ile Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu 35 40 Glu Trp Met Gly Trp Ile Ser Ala Xaa Asn Gly Asn Thr Asn Tyr Ala 55 Gln Xaa Val Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Arg Thr Ala Tyr Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Ile 85 Tyr Tyr Cys Ala Arg Glu Ile Xaa Val Xaa Xaa Cys Asp Gly Gln Leu 100 Gly Pro Gly Asn Leu Val 110

447

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20

Ile Gly Tyr Tyr Val His Trp Ile Arg Gln Thr Pro Gly Arg Xaa Leu

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449 25 Gln Val Val His Trp His Gln Gln Lys Pro Gly Gln Ala Pro Ile Leu Val Ile Tyr Asp Asp Thr Asp Arg Pro Ser Gly Ile Pro Asp Arg Phe 55 60 Ser Gly Ser Asn Ser Gly His Thr Ala Thr Leu Thr Ile Ser Arg Val 70 75 Glu Ala Gly Asp Glu Ala Asp Tyr Tyr Cys Gln Val Trp Asp Arg Ser 85 90 Ser Gly Gln Gly Ile Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Arg 105 Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu 120 Glu Leu Gln Ala Asn Lys Ala Thr <210> 856 <211> 48 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -15..-1 <400> 856 Met Arg Leu Leu Phe Leu Leu Phe Val Cys Phe Ser Arg Gln Gly -15 -10 -5 Leu Ala Leu Ser Leu Arg Leu Glu Cys Ser Gly Met Ile Met Ala Tyr 5 10 Cys Ser Ile Ser Leu Pro Gly Ser Ser Ser Pro Leu Thr Ser Ala Ser 25 <210> 857 <211> 74 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -19..-1 <400> 857 Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ser Ala Pro Arg Trp -10 -15 Val Leu Ser Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gly Arg Leu Ser Leu Ala Cys Asp Val Val Glu Leu Ser Pro 20 25 Pro Ala Pro Arg Gly Gly Ser Ala Val His Leu Arg Asn Leu Ser Ser 35 Trp Glu Pro His Leu Gln Pro Val Ser Gly <210> 858 <211> 57 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -32..-1

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                                      1
Ser Gly Pro Gly Leu Val Lys Ala Ser Glu Thr Leu Ser Leu Ala Cys
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                              15
Ser Val Ser Gly Asp Ser Ile Ser Ser Gly Asn Tyr Tyr Trp Gly Trp
Ile Arg Gln Pro Pro Gly Lys Gly Leu Gln Trp Leu Gly Ser Leu Trp
                      45
Asn Arg Gly Gly Pro Gln Tyr Asn Xaa Ser Leu Lys Asn Arg Val Thr
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Val Ser Val Asp Thr Ser Thr Asn His Phe Phe Leu Arg Leu Asn Ser
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Lys Xaa Asp Phe Val Gly His Gln Val Leu Arg Ile Ser Val Ala Asp
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Cys Leu Arg Gly Gln Gly
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Ser Ser Tyr Ala Met Leu Trp Val Arg Gln Ala Pro Gly Lys Gly Leu 35 40

Glu Trp Val Ser Gly Ile Ser Ala Gly Ala Asp Asp Thr Tyr Asp Ala 50 55

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Lys 70

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Lys Pro Asp Asp Ser Gly Lys Asp Pro Lys Pro Asp Phe Pro Lys Phe 10 15 20

Leu Ser Leu Leu Gly Thr Glu Ile Ile Glu Asn Ala

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Ala Leu Pro Ser Pro Leu Ser Ala Arg Ala Glu Pro Pro Gln Asp Lys

Glu Ala Cys Val Gly Thr Asn Asn Gln Ser Tyr Ile Cys Asp Thr Gly 15

His Cys Cys Gly Gln Ser Gln Cys Cys Asn Tyr Tyr Tyr Glu Leu Trp 35 30

Trp Phe Trp Leu Val Trp Thr Ile Ile Ile Leu Ser Cys Cys 50

Val Cys His His Arg Arg Ala Lys His Arg Leu Gln Ala Gln Gln Arg

454

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Asp Arg Ala Thr Cys
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Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe
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Ser Xaa Tyr Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
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Glu Trp Met Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Xaa Tyr Ala
                                 55
Gln Lys Phe Gln Gly Arg Val Thr Ile Thr Ala Asp Xaa Ser Thr Xaa
                             70
Thr Xaa Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Xaa
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                        85
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Tyr Tyr Cys Ala Arg Gly Gln Ala Pro Gly Arg Val Val Pro Leu
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Phe Leu Trp Gly Gln Gly Thr Trp Ser Pro Ser Pro Gln Pro
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-40
-35
-30
Leu Asn Tyr Val His Ser Glu Ala Asn Arg Arg Thr Lys Thr
-25
-20
-30

455 Leu Leu Ser Leu Leu Ser Phe Leu Asp Glu Thr Ser Gly Leu Ser Thr - 5 -10 His Leu Pro Cys Leu Ser Leu Ser Lys Glu Cys Gly Val Leu His Leu 10 15 Asp Ile His Gly Lys Lys Glu Asp Met Arg Asp Glu Val Leu Leu Ala 30 25 20 Leu Asn Xaa Cys Thr His Arg 40 <210> 874 <211> 79 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -19..-1 <400> 874 Met Lys Ser Phe Ser Arg Ile Leu Phe Leu Val Phe Leu Leu Ala Gly -15 -10 Leu Arg Ser Lys Ala Ala Pro Ser Ala Pro Leu Pro Leu Gly Cys Gly 10 5 1 Phe Pro Asp Met Ala His Pro Ser Glu Thr Ser Pro Leu Lys Gly Ala 25 20 Ser Glu Asn Ser Lys Arg Asp Arg Leu Asn Pro Glu Phe Pro Gly Thr 40 35 Pro Tyr Pro Glu Pro Ser Lys Leu Pro His Thr Val Ser Leu Glu 55 <210> 875 <211> 51 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -41..-1 <400> 875 Met Arg Val Pro Ile Phe Pro His Pro His Gln Leu Ser Leu Leu Phe -30 -40 -35 Ile His Leu Phe Ile Tyr Leu Phe Arg Glu Arg Val Ser Leu Cys His -20 -15 Leu Gly Trp Ser Ala Val Val Gln Ser Gln Pro Thr Thr Leu Thr Ser Arg Ala 10 <210> 876 <211> 44 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -37..-1 <400> 876 Met Trp Lys Glu Ser Ser His Gly Cys Asn Asn Leu Gly Ser Ser Tyr -30 -25 Leu Asp Asp Thr Gly Val Gly Ser Phe Leu Phe Val Leu Phe Cys Phe -10

-15

-20

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Ala Val Phe Leu Thr Val Pro Ser Pro Gln
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Xaa Arg Xaa Ser Leu Pro Ala Cys Ala Asp Ser Ile Ile Leu Xaa Leu
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                           -15
        -20
Xaa Phe Pro Gly Ile Leu Gly Gln Ala His Leu Xaa Ser Glu Gln Trp
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     - 5
Thr Gln Tyr Leu
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                    -15
  -20
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 Leu Gly Leu Lys Cys
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457 <400> 880 Met Lys Ala Leu Gly Ala Val Leu Leu Ala Leu Leu Cys Gly Arg -10 -15 Pro Gly Arg Gly Gln Thr Gln Glu Glu Glu Glu Glu Asp Glu Asp 1 5 His Gly Pro Asp Asp Tyr Asp Glu Glu Asp Glu Asp Glu Val Glu Glu 20 Glu Glu Thr Asn Arg Leu Pro Gly Gly Arg Ser Arg Val Leu Leu Arg 35 Cys Tyr Thr Xaa Xaa Ser Leu Pro Arg Asp Glu Arg Cys Asn Leu Thr Gln Asn Cys Ser His <210> 881 <211> 88 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -15..-1 <400> 881 Met Lys Glu Tyr Val Leu Leu Leu Phe Leu Ala Leu Cys Ser Ala Lys -5 -10 Pro Phe Phe Ser Pro Ser His Ile Ala Leu Lys Asn Met Met Leu Lys 10 5 25 Asp Asp Glu Asp Asn Ser Leu Phe Pro Thr Arg Glu Pro Arg Ser His 40 45 Phe Phe Pro Phe Asp Leu Phe Pro Met Cys Pro Phe Gly Cys Gln Cys 55 Tyr Ser Arg Val Val His Cys Ser 70 <210> 882 <211> 95 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -19..-1 <400> 882 Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp -10 -15 Ala Met Ser Gln Val Gln Leu Gln Glu Ser Gly Pro Arg Leu Val Lys 5 10 1 Pro Ser Gly Thr Leu Ser Leu Thr Cys Ser Val Ser Gly Gly Ser Met 25 20 Ala Thr Ser Asp Trp Trp Ser Trp Phe Arg Gln Thr Pro Glu Lys Gly 40 35 Leu Glu Trp Ile Gly Glu Ile Phe Gln Thr Gly Pro Thr Asn Tyr Asn 55 50 Pro Ser Leu Lys Ser Arg Val Ser Met Ser Val Asp Met Ser Lys <210> 883

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WO 99/53051 458 <213> Homo sapiens <220> <221> SIGNAL <222> -26..-1 <400> 883 Met Asp Leu Thr Cys Lys Lys Met Lys His Leu Trp Phe Phe Leu Leu -20 -15 Leu Val Ala Ala Pro Arg Trp Ala Leu Ser Gln Leu Gln Leu Gln Glu - 5 Ser Gly Pro Gly Leu Val Lys Pro Ser Glu Thr Leu Ser Leu Thr Cys 15 10 Thr Val Ser Gly Glu Ser Ile Thr Thr Asn Ser Phe Cys Trp Ala Trp 30 Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu Gly Thr Val Cys 45 50 Tyr Gly Gly Thr Thr Tyr Xaa Asn Xaa Ser Leu Lys Ser Arg Val Lys 60 65 Leu Ser Leu Asp Thr Ser Thr Asn Gln Phe Ser Leu Lys Val Thr Ser 75 80 Met Thr Ala Gly Asp Ala Ala Val His Tyr Cys Ala Gly Leu Arg Val 95 Ser <210> 884 <211> 66 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -63..-1 <400> 884 Met Ala Asn Gly Thr Asn Ala Ser Ala Pro Tyr Tyr Ser Tyr Glu Tyr -55 Tyr Leu Asp Tyr Leu Asp Leu Ile Pro Val Asp Glu Lys Lys Leu Lys -40 -35 -45 Ala His Lys His Ser Ile Val Ile Ala Phe Trp Val Ser Leu Ala Ala -20 -25 Phe Val Val Leu Leu Phe Leu Ile Leu Leu Tyr Met Ser Trp Ser Ala -5 -15 Ser Pro <210> 885 <211> 133 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -19..-1 <400> 885 Met Asp Trp Thr Trp Arg Phe Leu Phe Val Val Ala Ala Ala Thr Gly -15 -10

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459
Glu Trp Leu Gly Arg Ile Ile Pro Ile Leu Gly Ile Thr Asn Tyr Ala
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Glu Lys Phe Arg Gly Arg Leu Thr Ile Thr Val Asp Lys Ser Thr Arg
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Val Val Tyr Met Glu Gln Ser Ser Leu Thr Ser Ala Asp Thr Ala Val
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Tyr Tyr Cys Ala Lys Pro Thr Met Thr Ser Glu Leu Arg Val Tyr Tyr
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Gln Xaa Thr Leu Trp
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Thr Ser Gln Thr Val Ser Gly Gln Arg Lys Lys Gly Pro Arg
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            -15 -10
Val Leu Ser Gln Leu Gln Leu Gln Glu Ser Gly Ser Gly Leu Glu Lys
           1
Pro Ser Gln Thr Leu Ser Leu Thr Cys Ser Val Ser Gly Gly Ser Ile
                      20
Ser Ser Asp Asp Leu Ser Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys
                                    40
                   35
Gly Leu Glu Trp Ile Gly Tyr Ile Tyr Gln Asn Glu Arg Thr Leu Tyr
              50 . 55
Asn Pro Ser Leu Lys Ser Arg Ala Ala Ile Ser Val Asp Arg Ser Lys
          65
Asn Gln Phe Ser Leu Lys Leu Thr Ser Val Thr Ala Ala Asp Met Ala
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Val Tyr Tyr Cys Ala Thr Ser Val Met Xaa Ser Phe Gly Gly Val Leu
                   100
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Val Pro Asn Leu Phe Leu Thr Thr Gly Ala Arg Glu Ser Arg
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         1
Pro Ser Gln Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Ala Ser Val
              20
Ser Ser Arg Gly Tyr Tyr Trp Thr Trp Ile Arg Gln Leu Pro Gly Lys
                                   40
                35
Gly Leu Glu Trp Ile Gly Tyr Ile Xaa Tyr Thr Gly Ser Thr Phe Tyr
                               55
              50
Asn Pro Ser Leu Lys Ser Arg Leu Thr Ile Ser Ile Asp Thr Ser Lys
                            70
Asn Gln Phe Ser Leu Asn Leu Arg Ser Val Thr Thr Ala Asp Thr Ala
                                           90
                        85
Val Tyr Tyr Cys Ala Arg Asp His Phe Asp Leu Leu Phe Asp Pro Trp
                            105
                     100
Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
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                 115
Ser Val Phe Pro Leu Ala Xaa Ser Ser Lys Ser
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Arg Phe Phe Asn Trp Gly Lys Leu Phe Phe Cys Phe Val Leu Xaa Leu
                          -15
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Phe Cys Phe Val Phe Glu Ala Glu Ser Arg Ser Val Ala Gln Ala Gly
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 Cys Leu Cys Leu Cys Gln Tyr His Ala
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Met Ala Tyr Ala Ile Ser Pro Phe His Ser Ser Trp Asn Pro Leu Phe -30 -35

Thr Ser His Lys Ala Ser Ala Ser His Ser His Leu Gly Leu Leu Val -25 -20

Cys Leu Phe Ala Val Thr Ser Ile Leu Cys Ser Ser -5

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<222> -15..-1

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Met Ser Pro Val Leu Leu Leu Ala Leu Leu Gly Phe Ile Leu Pro Leu -10

Pro Gly Ser Ala Xaa Ala Xaa Ser Ala Ser Leu Gly Gln Phe Ser Met 5 10 15

Cys Gly Arg Cys Pro Thr Cys Pro Gly Asn Gly Pro Leu Arg Thr Pro 20 25

Ala Ala Thr Xaa Xaa Xaa Val Pro Gly His Val Asp 40

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<212> PRT

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<220>

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<222> -23..-1

<400> 893

Met Ala Thr Ala Met Asp Trp Leu Pro Trp Ser Leu Leu Phe Ser -20 -15

Leu Met Cys Glu Thr Ser Ala Phe Tyr Val Pro Gly Val Ala Pro Ile 1 -5

Asn Phe His Gln Asn Asp Pro Val Glu Ile Lys Ala Val Lys Leu Thr 10 15 20

Ser Ser Arg Thr Gln Leu Pro Tyr Glu Tyr Tyr Ser Leu Pro Phe Cys 35

Gln Pro Ser Lys Ile Thr Tyr Lys Ala Glu Asn Leu Gly Glu Val Leu 50 45

Arg Gly Asp Arg Ile Val Asn Thr Pro Phe Gln Val Leu Met Asn Ser 65

Glu Lys Lys Cys Glu Val Leu Cys Ser Gln Ser Asn Lys Pro Val Thr

Leu Thr Val Glu Gln Ser Arg Leu Val Ala Glu Arg Ile Thr Glu Asp 100

Tyr Tyr Val His Leu Ile Ala Asp Asn Leu Pro Val Ala Thr Gly Trp 115 · 120

Ser Ser Thr Pro Thr Glu Thr Ala Met Thr 125

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<211> 28

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Leu Gly Leu Gln Tyr Pro Cys Xaa Leu Leu Pro
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<211> 53
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                       -10
   -15
Ala Val Pro Lys Phe Asp Gln Asn Leu Asp Thr Lys Trp Tyr Gln Trp
                     10
 1 5
Lys Ala Thr His Arg Arg Leu Tyr Gly Ala Asn Glu Glu Gly Trp Arg
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Arg Ala Ala Trp Glu
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Val His Cys Glu Val Gln Leu Val Glu Ser Gly Gly Asp Leu Val Gln
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Pro Gly Arg Ser Leu Arg Leu Ser Cys Thr Ala Ser Gly Phe Thr Phe
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Gly Asp Tyr Ala Met Thr Trp Phe Arg Gln Ala Ser Gly Lys Arg Leu
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Tyr Gly Ala Ser Val
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  His Ile Asn Arg Met Asn Val Arg Asn Val Gly Asn Thr Leu Val Val
    1 5
                                10
  Val Gln Ile Leu Phe Ser Ile Arg Val Phe Ile Leu Glu Arg Asn Pro
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  Leu Asn Val
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                      -10 -5
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               5 ·
  Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
   15 20
  Asp Asp Tyr Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
  30
           35
                               40
  Glu Trp Val Ser Gly Ile Thr Trp Asn Ser Gly Xaa Ile Gly Tyr Ala
                  55
            50
  Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
  Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Thr Glu Asp Thr Ala Phe
   80 85
                                   90
  Tyr Phe Cys Ala Lys Ala Arg Gly Leu Phe Ser Asp Thr Trp Pro Tyr
   95 100
                             105
  Xaa His Tyr Ala Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val
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  Ala Ser Ser Pro Ile Ala Ala Xaa Pro
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-55 -50 Ala Leu Asn Leu Gln Lys Tyr Cys His Ile Arg Leu Ala Gly Ser Lys -35 Asp Pro Arg Ala Tyr Phe Lys Thr Lys Thr Trp Trp Leu Gly Leu Phe -15 -20 Leu Met Leu Leu Gly Glu Leu Gly Val Phe Ala Ser Tyr Ala Phe Ala

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                            -15
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Thr Ile Pro Lys Lys Leu Arg Arg Arg Asp Gly
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Ile Phe Asp Cys Gln Gly Ser Leu Ile Ala Ala Tyr Leu Leu Leu Pro
               15
                                        20
Leu Gly Phe Val Ile Leu Leu Ser Gly Ile Phe Trp Ser Asn Tyr Arg
                                    35
                 30
Gln Val Thr Glu Ser Lys Gly Val Leu Arg His Met Leu Arg Gln His
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                                50
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467

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  -10
                      -5
Thr Ser Ala Ser Tyr Lys Gln Lys Phe Ala Leu Arg Ile Leu Val Val
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Gln Leu Pro Thr Trp Val Glu Cys Pro Val Asn His Arg Cys Ala Leu
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Gly Arg Lys Asn Cys Ser Ile Arg Thr Gln Pro
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Leu Ile His Ser Phe Pro Pro Cys
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Leu Val Ala Ala Pro Arg Trp Val Gln Leu Gln Glu Ser Gly Pro Arg
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Leu Val Arg Pro Pro Glu Thr Leu Lys Pro Ser Glu Thr Leu Ser Leu
           10
                             15
Thr Cys Thr Ile Ser Gly Asp Ser Met Ser Ser Ala Ser Tyr Tyr Trp
                          30
Ala Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Phe Ile Gly Arg
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Ala Leu Tyr Ser Gly Thr Thr Asp Tyr Asn Pro Ser Leu Ser Ser Arg
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Ile Thr
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Pro Pro Pro Tyr Asn Ala Pro Gln Pro Pro Ala Glu Pro Pro Ala Pro
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                       -20
Pro Leu Ser Leu Ser Leu Cys Leu Ser Leu Cys His Thr His Thr His
Thr His Thr His
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    -25 -20
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Val Ser Leu Leu Met Gln Pro Glu Gly Ala Leu Gly Glu Glu Ala Ala
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Ser Ala Ala Ala Gln Gly Arg Gln Leu Ala Glu Leu Arg Leu
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                  -30
Gln Asn Ile Thr Cys Ser Ser Phe Ser Leu Leu Ile Phe Leu Ser
  -20
                         -15
                                        -10
Phe Pro Tyr Thr Leu Cys Ile Leu Tyr Arg Val Lys Ser Tyr Thr Pro
                  1
Thr Glu Ser Ile Thr Ala Phe Asn Leu Thr Ile Gly Xaa Phe Pro Tyr
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Leu Xaa Xaa Ser Thr Pro
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Gly Glu Leu Val Phe Leu Leu Cys Leu Phe Xaa Leu Phe Phe Phe Ser
        -15
                  -10
Phe Leu Lys Arg Ser Phe Ala Leu Glu Cys Asn
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1 5
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Met Val Asp Phe Ile Leu Arg Ser Leu Leu Leu Val Cys Ser Trp Leu
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                                       -10
Ser Ile Ser Leu His Ala His Thr Thr Ala Phe Cys Thr Tyr Ser Lys
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Lys Ile His Thr Val Met Ser Phe Phe Cys
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-15 -10
Phe Phe Phe Phe Phe Phe Phe Phe
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-45 -40 -35

Leu Leu Ser Pro Arg Glu Thr Ile Glu Glu Val Ala Leu Phe Gln Phe
-30 -25 -20

Ser Leu Leu Xaa Leu Gly Glu Gly Leu Thr Phe Leu Cys Leu Cys Gln -15 -5 1

Val Met Thr Asn Xaa Met Gln Leu Leu Phe Leu Ser Gly Val Val Cys
5 10 15

Gly

<210> 950

<211> 21

<212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

<222> -13..-1

<400> 950

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Thr Leu Leu Pro Arg
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<210> 951 <211> 47

<212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

<222> -20..-1

<400> 951

Met Val Pro Ala Ala Gly Ala Leu Leu Trp Val Leu Leu Leu Asn Leu
-20 -15 -10 -5

Gly Pro Arg Ala Ala Gly Ala Gln Gly Leu Thr Gln Thr Pro Thr Glu

1 5 10

Met Gln Arg Val Ser Leu Arg Phe Gly Gly Pro Met Thr Arg Arg 15 20 25

<210> 952

<211> 58

<212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

<222> -24..-1

<400> 952

Met Val Phe Trp Glu Ile Ser Val Gln Ile Ile Leu Ile Ser Glu Leu
-20 -15 -10

Leu Leu Leu Arg Ser Val Thr Ser His Asn Thr Met Met Arg Ala Leu
-5 1 5

Ser Ser Gln Met Leu Ser Gln Ser Phe Pro Arg Pro Ser Phe Gly Phe
10 15 20

Ile Ser Lys Ile His Pro Ser His Pro Pro 25 30

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<212> PRT
<213> Homo sapiens
<220>
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Met Phe Phe Leu Asn Ile Ala Met Phe Ile Val Val Met Val Gln Ile
            -45
Cys Gly Arg Asn Gly Lys Arg Ser Asn Arg Thr Leu Arg Glu Glu Val
        -30
                        -25
Leu Arg Asn Leu Arg Ser Val Val Ser Leu Thr Phe Leu Leu Gly Met
       -15
                    -10 -5
Thr Trp Gly Phe Ala Phe Phe Ala Trp Gly Pro Leu Asn Ile Pro Phe
 1
              5
Met Tyr Leu Phe Ser Ile Phe Asn Ser Leu
15
                    20
<210> 954
<211> 58
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<222> -17..-1
<400> 954
Met Asn Lys His Phe Leu Phe Leu Phe Leu Xaa Xaa Leu Ile Val
     -15 -10
Ala Val Thr Ser Leu Gln Cys Ile Thr Cys His Leu Arg Thr Arg Thr
1 5
                        10
Asp Arg Cys Arg Arg Gly Phe Gly Xaa Cys Thr Ala Gln Lys Gly Glu
       20
                             25
Ala Cys Met Leu Leu Arg Ile His Gln Arg
<210> 955
<211> 47
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<222> -35..-1
<400> 955
Met Tyr Ile Lys Met Glu Ser Val Thr Leu Ser Pro Ala Pro Val Phe
         -30 -25 -20
Pro Val Pro Ala Gln Leu Leu Leu Thr Ser His Phe Leu Gly Glu
            -15
                 -10
Ser Leu Gly Gly Gly Thr Leu Leu Val Pro Leu Leu Pro Pro Gly
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<210> 956
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<212> PRT
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<222> -27..-1
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Leu Leu Thr Ile Cys Ala Ala Gly Ile Xaa Gly Thr Arg Gln Phe Gly
 -10
           -5
                                      1
Tyr Asn Leu Ser Ile Ile Asn Asp
           10
<210> 957
<211> 54
<212> PRT
<213> Homo sapiens
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<222> -47..-1
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Met Met Gly Xaa Leu Cys Pro Arg Ser Leu Pro Ile Pro Pro Met Ile
 -45 -40 -35
Leu Ser Trp Trp Lys Met Gln Trp Lys Pro Leu Ala Leu Glu Asn Phe
-30 -25
                                   -20
Ser Gly Ser Cys Leu Phe Ser Xaa Ala Trp Leu Xaa Cys Xaa Cys His
-15
                 -10
Gly Asp Asp Asp Leu Ser
          5
<210> 958
<211> 48
<212> PRT
<213> Homo sapiens
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<221> SIGNAL
<222> -15..-1
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Met Gly Leu Leu Gln Leu Leu Ala Phe Ser Phe Leu Gly Asn Ser Val
    -10 -5
Glu Thr Val Arg Gly Gly Gly Arg Thr Trp Ala Trp Gly Arg Lys Thr
                           10
                                             15
Gln Lys Leu Ala His Leu Arg Gly Ile Leu Gly Ala Trp Xaa Arg
<210> 959
<211> 25
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -14..-1
Met Leu Val Leu Val His Ser Ser Leu Ser Lys Thr Leu Ser Gln Lys
       -10
Lys Lys Phe Thr Xaa Pro Thr Arg
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<212> PRT
<213> Homo sapiens
<220>
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<222> -30..-1
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-30 -25 -20
Leu Ala Ile Leu Leu Xaa Xaa Trp Glu Ala Gly Ser Glu Ala Val Arg
    -10 -5
Tyr Ser Ile Pro Glu Glu Thr Glu Ser Gly
<210> 965
<211> 66
<212> PRT
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<222> -35..-1
<400> 965
Met Met Leu Asp Phe Ala Leu Ser Pro Arg Leu Glu Arg Ser Gly Leu
              -30 -25 -20
Ile Met Ala Cys Cys Thr Leu Asp Leu Leu Gly Ser Ser Ser Pro Pro
             -15 -10
Thr Ser Ala Ser Gln Val Ala Gly Thr Gly His Val Pro Pro His Pro
      1 5
                                 10
Ala Ser Phe Phe Tyr Phe Xaa Val Xaa Gln Val Tyr Tyr Val Ser Gln
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                 20
Leu Ile
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<400> 966
Met Arg Thr Pro Gln Leu Ala Leu Leu Gln Val Phe Phe Leu Val Phe
 -20 -15 -10
Pro Asp Gly Val Arg Pro Gln Pro Ser Ser Ser Pro Ser Gly Ala Val
 -5 1 5
Pro Thr Ser Leu Glu Leu Gln Arg Gly Thr Asp Gly Gly Thr Leu Gln
                              20
            15
Ser Pro Ser Glu Ala Thr Ala Thr Arg Pro Ala Val Pro Gly Leu Arg
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<210> 967
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Met Pro Arg Pro Arg Ala Cys Ala Ser Trp Pro Leu Leu Ala Ala Val
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                                     -10
Ser Gly Leu Arg Gly Leu Glu Trp Pro Pro Ser Trp Arg Arg Val Val
                            5
        1
Ala Ala Val Gly Val Cys Arg Val Arg Asp Trp Gly Pro Arg
<210> 968
<211> 23
<212> PRT
<213> Homo sapiens
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<222> -17..-1
<400> 968
Met Asn Gly Ile Phe Leu Leu Leu Ile Ser Val Leu Thr Val Ile Trp
 -15 -10
Phe Trp Lys Thr His Pro Gly
1
<210> 969
<211> 27
<212> PRT
<213> Homo sapiens
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<221> SIGNAL
<222> -18..-1
<400> 969
Met Val Phe Leu Val Xaa Leu Leu Cys Ile Ile Xaa Leu Tyr Leu Ile
    -15 -10
Arg Gly Ser Glu Trp Xaa Leu Pro Pro Asn Trp
                 5
<210> 970
<211> 53
<212> PRT
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<222> -18..-1
Met Met Thr Leu Ala Leu Phe Phe Leu Leu Arg Ile Ala Leu Ala Ser
         -15
                          -10
Trp Ala Leu Phe Trp Ile His Met Asn Phe Arg Arg Ala Phe Phe His
                 5
Leu Arg Trp Phe Asp Ile Asn Ser Thr Glu Ser Val Asn Cys Phe Gly
       20
                                25
Gln Tyr Gly Leu Ala
<210> 971
<211> 37
<212> PRT
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<220>
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<222> -29..-1
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           -25 -20 -15
Ser Leu Leu Val Phe Cys Leu Asn Asp Leu Ser Asn Ala Val Xaa Xaa
                             -5
Gly Ile Glu Xaa Pro
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<210> 972
<211> 120
<212> PRT
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<222> -16..-1
<400> 972
Met Ala Trp Ile Pro Leu Phe Leu Gly Val Leu Ala Tyr Cys Thr Gly
                      -10
Ser Val Ala Ser Tyr Glu Leu Thr His Pro Pro Ser Val Ser Val Ser
1 5
                                10
Pro Gly Gln Thr Ala Ser Ile Thr Cys Ser Gly Asp Lys Leu Gly Asp
        20
                              25
Lys Tyr Ala Cys Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Val Leu
                          40
Val Ile Tyr Gln Asp Ser Lys Arg Pro Ser Gly Ile Pro Glu Arg Phe
                     55
                                       60
Ser Gly Ser Asn Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Gly Thr
                  70
                                    75
Gln Ala Met Asp Glu Ala Asp Tyr Tyr Cys Gln Ala Trp Asp Ser Ser
                                90
              85
Thr Val Val Phe Gly Gly Gly Thr
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Phe Cys Phe Xaa Leu Cys Phe Gly Arg Ser Ser Leu Cys Cys Arg Xaa
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Met Glu Ser Ser Gly Thr Pro Ser Val Thr Leu Ile Val Gly Ser Gly
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Leu Ser Cys Leu Ala Leu Xaa Thr Leu Ala Val Val Tyr Ala Ala Leu
              -10
                        -5
Trp Arg Tyr Ile Arg Ser Glu Arg Ser Ile Ile Leu Ile Asn Phe Cys
                  10
Leu Ser Ile Ile Ser Ser Asn Ile Leu Ile Leu Val Gly Gln Thr Gln
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Thr His Asn Lys Glu Tyr Leu His Asn His His Cys Ile Phe
35 40
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Met Gly Val Cys Cys Ala Gln Asn Cys Ser Val Ser Gly Xaa Xaa Arg
 -30 -25
                                   -20
Asn Ala Leu Xaa Phe Leu Ala Ser Ser Phe Cys Phe Gly Glu Ala Asp
       -10 -5
Ser Gly Ser Arg Cys Cys Leu Lys Ile Ile Leu Gly Phe Tyr Leu Ile
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Arg Tyr Ser Leu Ile Thr Tyr Gln Val Arg
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Met Lys Ile Leu Tyr Leu Phe Phe Phe Leu Lys Trp Ser His Pro Gly
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Trp Ser Ala Thr Xaa Trp Ser Trp His Thr Ala Thr Ser Ala Ser Leu
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Ile Gln Val Ile Leu Pro Pro Trp
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Met Thr Pro Cys Phe Leu Gln Met Asp Asn Leu Thr Pro Leu Phe Leu
-25 -20 -15
Ser Gly Cys Phe Leu Phe Leu Ser Xaa Cys Xaa Ile Tyr Leu Ala Arg
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Ile Leu
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Pro Thr Pro Gly Asp Leu Ala Pro Xaa Pro Leu Ile Thr Cys Lys Leu
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             -20
                                             -10
Cys Leu Cys Glu Gln Ser Xaa Gly Gln Asp Asp His Thr Pro Gly Met
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                               -40
His Val Asp Gln Tyr Leu Thr Val Glu Thr Ala Gly Gly Met Glu Lys
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         -30
                                            -20
Glu Ala Val Ser Val Thr Val Leu Leu Ser Ala Ala Pro Cys Leu Leu
    -15 -10 -5
Ser Cys Phe Leu Gly Ser Ser Val Ser Gly Leu Ala Phe Trp Val Ser
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                                10
Gln Gln Lys Thr Lys Gly Pro Glu Arg Cys Lys Asn Thr His His Xaa
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Ala Xaa Asn Asn Phe Pro Ala Arg
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Met Asn Lys Ile Lys Glu Asn Thr His Thr His Thr His Thr His Thr
-40 -35
                        -30 -25
His Lys Asn Asn Thr Lys Leu Val Ser Asn Leu Phe Leu Phe Met Leu
           -20
                             -15
Pro Leu Trp Cys Ser Ile Gly Thr Cys Thr
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<210> 984 <211> 25 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -15..-1

Met Arg Leu Trp Ser Leu Ala Cys Leu Ser Pro Pro Ala Val Gln Leu -10 -5 Gly Ser Gln Gln Ala Thr Asp Trp Trp

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Met Ser Pro Leu Phe Ile Leu Ile Val Leu Ile Trp Ile Phe Ser Phe
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Phe Phe Phe Ile Thr Leu Val Arg Gly Ser Ile Asn Leu Phe Phe
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<400> 986
Met Asn Leu Gly Gly His Ser Asp His Ser Thr Phe Leu Phe Phe Leu
                          -15
Phe Phe Ser Val Phe Cys Phe Phe
   -5
<210> 987
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<212> PRT
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Met Leu Asp Phe Ala Ile Phe Ala Val Thr Phe Leu Leu Ala Leu Val
                      -15
                                -10
Gly Ala Val Leu Tyr Leu Tyr Pro Ala Ser Arg Gln Ala Ala Gly Ile
                  1
Pro Gly Ile Thr Pro Thr Glu Glu Lys Asp Gly Asn Leu Pro Asp Ile
Val Asn Ser Gly Ser Leu His Glu Xaa Leu Val Asn Leu His Glu Arg
                          35
Tyr Gly Pro Val Val Ser Phe Trp Phe Gly Arg Arg Leu Val Val Ser
                     50
Leu Gly Thr Val Asp Val Leu Lys Gln His Arg
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               -10
Ser Ala Ser Gln Ser Thr Gly Ile Thr Ser Val Ser
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Met Pro Ser Gln Leu Leu Leu Ser Leu Ser Leu Phe Leu Phe Phe
    -15
                        -10
                                          -5
Trp Arg Gln Ser Leu Val Leu Trp Pro Arg Leu Glu Cys Ser Cys Val
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Ile Ala Ala His Cys Ser Leu Thr Ser Gln Ala Arg
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Ile Cys Xaa Xaa Tyr Met Trp Leu Ile Leu Ile Tyr Met Tyr Leu His
-30 . -25
                                 -20
Ile Cys Leu Phe Cys Cys Xaa Phe Ile Ser Ser Cys Asn Ser Val Phe
              -10
                  -5
                                       1
Pro Cys Val Ile Xaa Phe Leu Leu Pro Glu Glu Leu Leu Xaa Val Xaa
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Leu Glu Cys
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Met Leu Leu Thr His Asn Glu Asp Tyr Met Pro Gly Asn Xaa Xaa Xaa
 -30 -25
                                    -20
Xaa Xaa Leu Trp Ser Leu Ile Gln Ala Val His Ile Cys Leu Gly Arg
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Lys Lys Lys
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<211> 89

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49.

<212> PRT

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Met Glu Phe Gly Leu Ser Trp Val Phe Leu Val Ala Ile Ile Lys Gly
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Val Gln Cys Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys

1 5 10

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe 15 20 25

Xaa Trp Ile Xaa Xaa Ile Thr Thr Ser Gly Asn Thr Ala Xaa Tyr Ala 50 55 60

Xaa Ser Val Lys Xaa Arg Phe Thr Ile
65 70

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<211> 55

<212> PRT

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<220>

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<222> -17..-1

<400> 993

Met Lys Arg Phe Phe Leu Phe Val Cys Leu Xaa Phe Asp Glu Ser Cys
-15 -10 -5

Ser Val Thr Arg Leu Gly Cys Cys Gly Ala Ile Ser Ala His Cys Xaa 1 5 10 15

Leu Arg Leu Pro Gly Ser Ser Xaa Xaa Pro Ala Ser Thr Ser Arg Val 20 25 30

Xaa Gly Ile Thr Gly Met Arg 35

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<221> SIGNAL

<222> -38..-1

<400> 994

Met Ser Cys His Ser Leu Leu Ala Cys Lys Val Phe Thr Glu Lys Ser
-35 -30 -25

Pro Thr Lys His Ile Arg Glu His His Cys Met Leu Phe Val Ser Phe
-20 -15 -10

Leu Leu Leu Leu Gly Ser Arg
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                        1
-10 -5
Gly Thr Arg Ser Thr Val Ser Trp Ile Pro Pro Thr Tyr Lys Ala Ala
         10
                  15
                                            20
Thr Gln
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<400> 996
Met Val Arg Ala Ser Ile Leu Leu Ser Met Phe Cys Val Ser His Thr
           -15
                   -10
Val Gln Thr Ala Thr Tyr Thr
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<211> 52
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Met Glu Lys Thr Ala Leu Ser Ser Phe Thr Trp Trp Ala Pro Ala Cys
    -15 -10 -5
Cys Ala Pro Arg Thr Tyr Val Val Ser Ala Thr Thr Leu Ser Ala Val
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 1 5
Gln Gly His Cys Pro Leu Gln Ser Arg Thr Ser Thr Lys Gly Lys Leu
Trp Pro Phe Gly
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Met Ile Phe Thr Phe Gln Gln Ile Gly Gly Lys Leu Leu Ser Gly
                          ~15
Leu Thr Gln Glu Cys Leu Gly Ala Leu Pro Glu Ala Asn Val Phe Cys
-5
                      1
                            5
Arg Gly Gly Cys Thr Ala Thr Val Leu Lys His Gly Lys Ala Ser Pro
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10
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Glu Ser

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                       -25
                                          -20
Asp Ser Leu Leu Ala Leu Ser Pro Asp Leu Gln Ala Ala Arg Gly Leu
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-15
                                  -5
Met Cys Ala Ala Ser Val Met Ser Phe Leu Ala Phe Met Met
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<212> PRT
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               -35
                          -30
                                            -25
Asp Phe Cys Thr Leu Thr Leu Tyr Pro Gly Thr Leu Leu Lys Leu Leu
               -20
                                  -15
Ile Ser Leu Arg Ser Phe Trp Ala Glu Thr Thr Gly
           - 5
<210> 1001
<211> 43
<212> PRT
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Met Phe Ser Ser Pro Gly Leu Arg Thr Leu Phe Val Leu Val Gly Ser
              -20
                                   -15
Leu His Leu Phe Leu Ser Val Leu Ala Ser Lys Ser Arg Asn Ser Lys
             - 5
Lys Gln Arg Leu Phe Leu Leu Val Pro Leu Tyr
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<210> 1002
<211> 51
<212> PRT
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495 5 Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Leu Thr Leu 15 20 Ser Asn Asp Trp Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu 35 40 Val Trp Val Ser His Ile Asp Ser Ser Xaa Thr Ile Thr Asn Tyr Ala 55 Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Trp <210> 1006 <211> 38 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -15..-1 <400> 1006 Met Gly Leu Phe Leu Gly Phe Leu Ala Cys Ser Val Ala Tyr Gln Cys -10 -5 His Ser Ala Phe Val Thr Val Ala Ser Gln Tyr Thr Leu Lys Ser Glu 5 10 15 Thr Leu Met Pro Ala Ala 20 <210> 1007 <211> 104 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -49..-1 <400> 1007 Met Trp Glu Asp Ser Arg Asn Lys Arg Gly Gly Arg Trp Leu Val Ser -45 -40 Leu Ala Lys Gln Gln Arg His Ile Glu Leu Asp Arg Leu Trp Leu Glu -30 -25 -20 Thr Phe Ser Val Phe Leu Gly Leu Ile Phe Phe Leu Glu Leu Ala Thr -10 -5 Gly Ile Leu Ala Phe Val Phe Lys Asp Trp Ile Arg Asp Gln Leu Asn 5 10 Leu Phe Ile Asn Asn Asn Val Lys Ala Tyr Arg Asp Asp Ile Asp Leu 25 Gln Xaa Leu Ile Asp Phe Ala Gln Glu Tyr Trp Ser Cys Cys Gly Xaa Glu Ala Pro Ile Xaa Gly Thr Gly 50 <210> 1008 <211> 34 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -14..-1 <400> 1008

Met Phe Leu Ser Leu Ser Thr Ala Phe Trp Val Val Tyr Ala Met Ile

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496
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Ile Tyr Ser Ala Leu Ser Ala Gly Phe Ile Ile Phe Phe Leu Val Val
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Phe Asn
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Met Tyr Ile Val Met Asp Leu Pro Leu Trp Leu Ser His Glu Val Gln
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           -15
His Ser Val Thr His Gly
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                       -20
                                             -15
Phe Ser Phe Ser Phe Pro Ser Ser Phe Ser Ser Phe Phe Leu Xaa
                   - 5
                                        1
Phe Leu Ser Phe Phe Ser Ser Phe Phe Leu Ser Leu Leu Ser Phe Pro
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Ser Phe Leu Pro Pro Gly
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Met Ala Ala Leu Arg Ala Leu Cys Gly Phe Arg Gly Val Ala Ala Gln
-15
                   -10
                                      - 5
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                              10
Gly Val Arg Gln Trp Gln Pro Asp Val Glu Trp Ala Gln Gln Phe Gly
                          25
Gly Ala Val Met Tyr Pro Ser Lys Glu Thr Ala His Trp Lys Pro Pro
                      40
Pro Trp Asn Asp Val Asp Pro Pro Lys Asp Thr Ile Val Lys Asn Ile
                                      60
                55
Thr Leu Asn Phe Gly Pro Gln His Pro Ala Ala His Gly Val Leu Arg
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75
             70
Leu Val Met Glu Leu Ser Gly Glu Met Val Arg Lys Cys Asp Pro His
              90
Ile Gly Leu Leu His Arg Gly Thr Glu Lys Leu Ile Glu Tyr Lys Xaa
Tyr Leu Gln Ala Leu Pro Tyr Phe
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       -25
                 -20
                                           -15
Val Phe Leu His Leu Phe Leu Xaa Val Tyr Leu Gly Leu Val Met Pro
 -10
             -5
Thr Gln Gln Tyr Leu Leu Gln Ser Pro Leu Met Phe Thr Asp Lys
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                           -35
Asp Leu Leu His Arg Ser Ser Arg Arg Leu Gly Val Lys Pro Ser Thr
-30
                -25 -20
His Trp Leu Phe Phe Leu Met Leu Ser Leu Cys Thr Pro Pro Asp Arg
             -10 -5
Pro Trp Cys Val Leu Phe Pro Pro Leu
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                             -20
Leu Ser Leu Ser Leu Pro Leu Ser Leu Xaa Leu Leu Xaa Xaa
                -10
Pro His Ser Arg Thr Pro Gln Arg
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<210> 1015
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                             - 5
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Ala Gly Gly Leu Leu Gln Leu Gly Gly Ser Arg
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               -30
 -35
Ala Val Asp Ala Ile Pro Phe Cys Leu Leu Val Phe Phe Leu Ile Val
                      -15
                                        -10
Arg Thr Leu Ser Cys Arg Ser Val Gly Val Cys Trp Arg Ser Thr Pro
                  1
Asp Pro Val Cys Leu Gly Ile Thr Ser Arg Gly Cys Arg Thr Glu Ile
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                          20
Leu Gln Asn Ser Lys Cys Cys Ser Leu Ile Leu Pro Leu Glu Ala Ser
 30
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Ser Gln Arg Gly Thr Glu Cys Met
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Met Leu Tyr Pro Leu Pro Glu Ile Phe Leu Pro Phe Ser Leu Ser Pro
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              -15
Ala Asn Ala Gln Ser Lys Phe Ser Leu Tyr Phe Phe Pro Leu Val Lys
                      5
Pro Gly
  15
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Met Ser Leu Glu Pro Ala Ser Xaa Leu Leu Gly Val Arg Arg Leu -20 -15

Leu Cys Leu Xaa Phe Xaa Arg Leu Leu Leu Gly Thr Ser Leu Leu Lys -5 1

Phe Val Xaa Ser Xaa Ser Pro Pro Xaa Pro Xaa Thr Leu Thr Ser Ser 10 15

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<222> -24..-1

<400> 1019

Met Leu Ile Leu Tyr Leu Ala Thr Leu Leu Asn Leu Ser Val Leu Ile -15 Leu Cys Val Cys Val Cys Val Tyr Asp Leu Tyr Ile Xaa Arg

- 5 1

Gly

<210> 1020

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<212> PRT

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<222> -16..-1

<400> 1020

Met Ala Pro Leu Gly Thr Thr Val Leu Leu Trp Ser Leu Leu Arg Ser -10 -5

Ser Pro Gly Val Glu Arg Val Cys Phe Arg Ala Arg Ile Gln Pro Trp

His Gly Gly Leu Leu Gln Pro Leu Pro Cys Ser Phe Glu Met Gly Leu 20 25

Pro Arg Arg Phe Ser Ser Glu Ala Ala Glu Ser Gly Ser Pro Glu 40 45

Thr Lys Lys Pro Thr Phe Met Asp Glu Glu Val Gln Ser Ile Leu Thr 55

Lys Met Thr Gly Leu Asn Leu Gln Lys Thr Phe Lys Pro Ala Ile Gln 70 75

Glu Leu Lys Pro Pro Thr Tyr Lys Leu Met Xaa Gln Ala Gln Leu Glu

Glu Ala Thr Arg Gln 100

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<400> 1021

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                                              -20
Arg Arg Arg His His Leu Leu Phe Val Val Leu Leu Pro Pro Pro
          -15
                  -10
                                           -5
Gly Ser Val Xaa Leu Cys Ser Xaa Xaa Xaa Xaa Xaa Val Leu Xaa Xaa
                   5
Xaa Lys Phe Arg Xaa Gly Leu His Gly Ala Met Leu Pro Gly Leu Phe
               20
                                  25
Arg Gly Arg Pro Arg Ala Ala Leu Arg Leu Arg Val Ser Pro Xaa Cys
            35
                               40
Pro Gly Trp Lys Val Ala Arg Ser Arg Leu Thr Ala Thr Ser Ala Ser
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Arg Xaa Arg
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                   -5
Ile Ala Leu Lys Lys Ile Ser Gly Glu Leu Leu Arg Lys Arg Lys Arg
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Ile Gly
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Gln
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Met Tyr Gly Glu Ser Thr Leu Phe Ile His Ser Ser Val His Gly His
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Leu Gly Cys Leu Leu Ala Val Arg Ser Ser Ala Thr Val Asn Ile
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Thr Tyr Xaa Xaa Val Cys Val Asp Ile Xaa Xaa His Phe His Met Leu
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Met Ser Gly Ile Thr Gly Ser Tyr Gly Asn Ser Leu Ser
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Ser Leu Phe Arg Gly Ser His Arg Val Gln Val Thr Leu Arg Lys Thr
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Phe Cys Thr Thr Ser Ser Trp Leu Tyr Leu Leu Glu Val Val Ala Pro
              -15
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Leu Ser Gly Ile His Glu Trp Arg Pro Ser His Val Cys Leu Ser Cys
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Leu Gly Ser Thr Ser Cys Asn Pro Pro Glu
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Met Leu Arg Ser Ala Cys Val Ser Gln His Ala Gly Gly Ile Trp Val
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Asp Arg Gly Gly Pro Gln Cys Gln Arg Val Phe Thr Phe Cys Arg Gly
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                                -40
Leu Ser Pro Asn Phe Gly Arg Ser Glu Thr Gln Arg Glu Arg Trp Ile
        -30 -25
Arg Pro Gly Gln Leu Met Val Val Ala Glu Thr Ser Gln Gly Ser Trp
    -15 -10 _-5
Ser Ala Pro Thr Ser Pro Xaa Thr Ser Cys Pro Pro Pro Asn Thr Xaa
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Thr Thr Pro Xaa
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Met Val Ser Arg Ser Leu Arg Gly Arg Arg Thr Trp Val Arg Cys Met
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Arg Arg Leu Pro Pro Ile Pro Ala Trp Ser Gln Gly Lys Gly Met Pro
              -25
                                -20
                                                   -15
Gly Phe Val Ser Leu Leu Val Val His Ala Ala Asp Ala Trp Val Ala
          -10
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Gln Arg Leu Ser Thr Pro Tyr Phe Ser Leu Phe Leu Ser Ile Pro Arg
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Cys Ser Phe Pro Arg Arg Ser Ile Asp Arg Thr Cys Ser Ser Xaa Leu
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Asp Ser Glu Gly Ser Ser Ser Ile Xaa Pro Ser Thr Pro Phe
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Met Val Gly Ala Leu Pro Pro Ala Ser Leu Leu Pro Cys Ser Leu Ile
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Met Lys Leu Gln Phe Ala Phe Cys Tyr Phe Leu Tyr Leu Asp Thr Phe
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Phe Leu Phe Leu Phe Phe Xaa Glu Xaa Xaa Xaa Xaa Xaa Xaa Gly
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Arg Ser Ala Val Ala Xaa Pro Gln Leu Xaa Ala Ala Ser Thr Phe Xaa
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Phe Gln Ala Ile Phe Leu Pro Gln Xaa
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Asn Ala Leu Ala Gln Asp Thr Phe His Gly Tyr Pro Gly Ile Thr Glu
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Glu Leu Leu Arg Ser Gln Leu Tyr Pro Glu Val Pro Pro Glu Glu Phe
     -35
                     -30 -25
His Pro Phe Leu Ala Lys Met Arg Gly Ile Leu Lys Val Leu Leu Phe
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Ser Val Val Ser Gly Leu Glu Gln Asn Pro Leu Ala Ala Gly Phe Arg
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Leu Ser His Pro
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Met Met Met Ser Asn Val Met Leu Met Leu Gln Leu Gln Pro Leu Leu
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Ala Xaa Ser Leu Ile Leu Ser Pro Ser Pro Arg Pro Val Leu Gly Phe
          -10
                         -5
Phe Arg Gln Val His Leu Leu Thr Arg Ser His Phe Ser Arg Trp
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Met Ile Ile Leu Ile Asn Gln Leu Leu Phe Ile Cys Pro Pro Pro Pro
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Pro Ile Ser Ala Ser Ser Asn Tyr His Phe Thr Leu Tyr Leu His Asp
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Ile Asn Phe Phe Ser
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Thr Arg
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 Leu Ile Ile Thr Glu Leu Gly Tyr Gly
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 Arg Val Pro Phe Cys Ser Trp Glu Lys Ser Asp Gly Arg Ser
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Asp Gly Phe Leu Lys Tyr Ser Asp Pro Asn Asp Ile Ala Leu Ser Val
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Leu Ser Leu Val Ile Asn Phe Ser Trp Ser Arg Lys Cys Phe Val Pro
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Tyr Tyr Ile Pro Phe Lys Pro Tyr Arg Xaa Pro Tyr Pro Thr Ala Ala
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Met Tyr Val Cys Ile Tyr Ile Xaa Leu Xaa Asp Leu Tyr Asp Phe Phe
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               -35
Leu Leu Gly Thr Tyr Phe Phe Glu Arg Lys Cys Phe Val Cys Xaa Leu
                          -15 -10
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Phe Val Phe Leu Leu Ser Gly Leu Asn Tyr Phe Ser Ile Leu Ser Phe
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Tyr Pro Arg
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Arg Ser Leu Phe Phe Cys Cys Ile Phe Ser Gly Phe Ile Thr Phe Ile
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 Ala Arg
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Met Xaa Ile Cys Tyr Asn Ile Phe Gln Asn Ile Leu Gly Leu Leu
      -25 -20
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Ile Phe Leu Tyr Leu Ser Leu Asn Leu Phe Cys Ile Phe Phe Ser Val
                  - 5
                                      1
Pro Ala Leu Gln Pro Arg Arg Leu
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Leu Leu Gly Phe Pro Ser Lys Ala Leu Thr Phe Ile Ser
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Met Gly Arg Ser Lys Arg Gln Leu Leu Ser Leu Pro Gly Ser Phe Ile
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Pro Gly Asn Cys Arg Pro Arg Ile Leu Ser Asn Gly Glu Xaa Arg Arg
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Lys
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Met Arg Ser Asp Gly Phe Ile Arg Gly Phe Cys Phe Cys Phe Phe Leu
                  -20 -15
 Ile Phe Leu Leu Pro Pro Leu Pro Ala Met Ile Leu Arg Pro Leu Gln
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 Pro Cys Gly Ile Ile Ser Pro Ile Lys Pro Leu Phe Pro Phe Phe
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Gln Arg Thr Met Ile His Trp Asn Val Phe Leu Trp Asn Ser Phe Tyr
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Ser Cys Ile Lys Ile Phe Pro
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Gln Cys Cys Leu Ile Gly Leu Leu Val Pro Leu Leu Gly Trp Gly Asn
-15 -10
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Gln Asn Thr Gln Trp Tyr Pro Thr Ser Lys Met Pro Asp Gly
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Met Gly Arg Ser Asn Asp Phe Arg Phe Ala Phe Leu Thr Cys Phe Leu
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Gly Trp Glu Ile Val Tyr Phe Leu Val Leu Leu Arg Val Leu Tyr Thr
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Leu Gln Trp Gly Gly
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Met Lys Thr Asp Asn Leu Thr Ser Phe Leu Thr Tyr Met Pro Leu Ile
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Ser Ser Ser Cys Ser Ile Ala Pro
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Met Arg Phe Arg Phe Cys Gly Asp Leu Asp Cys Pro Asp Trp Val Leu
       -75 -70
Ala Glu Ile Ser Thr Leu Ala Lys Met Ser Ser Val Lys Leu Arg Leu
                                            -50
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Leu Cys Ser Gln Val Leu Lys Glu Leu Leu Gly Gln Gly Ile Asp Tyr
                            -35
 -45 -40
Glu Lys Ile Leu Lys Leu Thr Ala Asp Ala Lys Phe Glu Ser Gly Asp
                                    -20
 -30 -25
Val Lys Ala Thr Val Ala Val Leu Ser Phe Ile Leu Ser Ser Ala Ala
              -10 -5
Lys His Ser Val Asp Gly Glu Ser Leu Ser Ser Glu Leu Gln Gln Leu
                    10 15
  5
Gly Leu Pro Lys Glu His Ala Ala Ser Leu Cys Arg Cys Tyr Glu Glu
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Lys Gln Ser Pro Leu Gln Lys His Leu Arg Val Cys Ser Leu Arg Met
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Asn Arq
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Lys Cys Ser Ser Thr Asn Lys Trp Thr Lys Lys Met Trp Tyr Ile Tyr
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                        10
 Thr Met Glu Tyr Tyr Ser Ala Ile Lys Lys Asp Asp Ile Leu Ser Phe
                              30
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 Ala Thr Ile Trp Met Glu Leu Glu Ser Ile Thr Leu Ser Glu Ile Ser
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 Gly Xaa Pro Lys Asp Lys Leu Leu Met Phe Ser Leu Ile Cys Gly
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 Met Glu Ser Ser Thr Phe Ala Leu Val Pro Val Phe Ala His Leu Ser
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 Ile Leu Gln Ser Leu Val Pro Ala Ala Gly Ala Xaa Ser Pro
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Pro Gly Pro Phe Thr Gln Tyr Leu Val Asp His His His Thr Leu Leu
 -60
                       -55
Cys Asn Gly Tyr Trp Leu Ala Trp Leu Ile His Val Gly Glu Ser Leu
                                     -35
 -45 -40
Tyr Ala Ile Val Leu Cys Lys His Lys Gly Ile Thr Ser Gly Arg Ala
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-30 -25
Gln Leu Leu Trp Phe Leu Gln Thr Phe Phe Phe Gly Ile Ala Ser Leu
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Xaa Ile Leu Ile
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Met Cys Cys Trp Ile Trp Val Ala Ser Ile Leu Leu Arg Ile Phe Ala
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Ser Val Leu Ile Arg Asp Ile Tyr Leu Trp Phe Ser Phe Phe Phe
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Met Ile Ser Ser His Leu Tyr Asn Phe Ser Leu Leu Phe Phe Xaa Leu
         -20 -15 -10
Trp Leu Arg Tyr Lys Glu Ser Gly Arg Glu Gly Asn Cys Glu Glu Gly
                  1 5
     - 5
Ala Phe Ser Arg Trp
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Gly Ala Ser Asn Ala Thr Arg Xaa Pro Lys Xaa Leu Tyr Arg Xaa Tyr
                                10
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   1 5
Asn His Gly Val Leu Lys Ile Thr Ile Cys Lys Ser Cys Gln Lys Pro
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           20
Val Asp Lys Tyr Ile Glu Tyr Asp Pro Val Ile Ile Leu Xaa Asn Ala
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Ile Leu Cys Lys Ala Xaa Ala Tyr Arg His Ile Leu Phe Asn Thr Gln
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Ile Asn Asn Lys Leu Pro Ile Leu Leu Ala Phe Leu Pro Ser Cys Gly
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Xaa Thr Ala His Asp Gly Lys Lys Pro Asn Phe Ile Leu Leu
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Lys Xaa Tyr Tyr Tyr Leu Ala Thr Glu Asn
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Ser Thr Ala Ile Leu Cys Pro Ser Gly Ala Ser Arg Arg Gln Arg Ser
Ser Glu Val Glu Trp Gly Thr Asp Ser
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Met Asn Pro Leu Phe Trp Leu Ile Leu Cys Ser Gly Leu Leu Cys Asn
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-15
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Lys Ser Phe
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Met Arg Gly Ala Trp Ile Ser Ile Phe Leu Ser Ser Leu Ser Leu Ser
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Leu Ser Leu Phe
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Pro His Phe Phe Leu Ser Phe Leu Ser Pro Phe Tyr Leu His Pro Trp
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Leu Phe Lys Phe Leu Ala His Phe Leu Ile Gly Leu Thr Val Cys Phe
     -15
                  -10
Gly Glu Gly Xaa Leu Met Ser Tyr Arg Ser Ser Tyr Leu Leu Leu Lys
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Gly Pro Pro Gly
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Met Gly Phe Trp Cys Glu Cys Pro Phe Cys Leu Leu Val Phe Leu Leu
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Thr Glu Trp Thr Ser Ser Lys Leu Gln Lys Thr
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Met Trp Trp Gly Arg Cys Phe Ile Arg Val Leu His Leu Phe Pro Leu
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                          -15
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Thr Pro Ala Ser Thr Gly His Trp
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Met Arg Asp Pro Leu Ala Asp Met Val His Ser Tyr Leu Ser Ser
                                 -20
              -25
Leu Phe Met Ala Leu Pro Pro Val Leu Ser Ser His Gly Ser Arg Asn
                           -5
           -10
Leu Arg Ile Trp Gly Ser Pro Phe Gly Gly Ala Leu Thr Lys Gly Lys
                     10
Ala Pro Pro Thr Pro Ala Gln Pro Ala Leu
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Met Ser Ser Ala Trp Leu Cys Leu Pro Cys Ser Leu Cys Val Ser Gln
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Leu Leu Pro Ser Tyr Ser Leu Leu Ile Pro Ala Pro
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Pro Pro Met Arg Ala Cys Ser Val Cys Val Leu
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Met Ser Leu Asn Glu Leu Ser Ile Ala Asp Leu Leu Pro Ser Ser Ser
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513
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Phe Ala Asn Pro Lys Leu Ser Gly Pro Ile Ser Ile Ser Val Thr Ser
 1 5
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Ala Gly Ser Pro Pro Gly Ala
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Met Lys Asp Leu Leu Gly Thr Ala Phe Leu Glu Gly Ser Leu Ala Ala
-15 -10
Tyr Leu Thr Met Ala Asn Ile Thr His Val
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Met Ala Asn Asp Ile Lys His Leu Phe Met Cys Leu Leu Thr Ile Cys
          -15 -10
Ile Ser Ser Leu Glu Lys Leu Pro Phe Phe Phe Phe
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              -20
Phe Thr Val Gly Ser Val Leu Gly Gln Ile Leu Val Ser Val Ala Gly
          - 5
                             1
Trp Ser Leu Phe Ser Leu Asn Val Ile Ser Leu Thr Cys Val Ser Val
                                       20
                   15
  10
Ala Phe Ala Val Ala Trp Phe Leu Pro Met Pro Gln Lys Ser Leu Phe
                 30
                                   35
Phe His His Ile Pro Ser Thr Cys Gln Arg Val Asn Gly Ile Lys Val
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Gln Asn Gly Gly Ile Val Thr Asp Thr Gln Leu Leu Thr Pro Ser Trp
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Leu Gly
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Gly Leu Phe
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Ser Pro Ser Trp Met Cys Arg Pro Pro Ala Ser Phe Ile Ile Thr Thr
-5
                  1
                          5
Thr Thr Thr Cys Gly
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 -15
Ser Pro Arg
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Met Val Gly Glu Ala Gly Arg Asp Leu Arg Arg Arg Ala Val Ala
              - 30
                                -25
Val Thr Ala Glu Lys Met Ala Val Leu Ala Pro Leu Ile Ala Leu Val
                          -10
          -15
Tyr Ser Val Pro Arg Leu Ser Arg Trp Leu Ala Gln Pro Tyr Tyr Leu
             5
                                       10
Leu Ser Ala Leu Leu Ser Ala Ala Phe Leu Leu Val Arg Lys Leu Pro
        20
                                25
Pro Leu Cys His Gly Leu Pro Thr Gln Arg Glu Asp Gly Asn Pro Cys
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40 35 Asp Phe Asp Trp Arg Glu Val Glu Ile Leu Met Phe Leu Ser Ala Ile 55 Val Met Met Lys Asn Arg Arg Ser Ile Thr Val Glu Gln His Ile Gly 70 Asn Ile Phe Met Phe Ser Lys Val Ala Asn Thr Ile Leu Phe Phe Arq 85 Leu Asp Ile Arg Met Gly Leu Leu Tyr Ile Thr Leu Cys Ile Val Phe 100 105 Leu Met Thr Cys Lys Pro Pro Leu Tyr Met Gly Pro Glu Tyr Ile Xaa 120 115 Tyr Phe Asn Asp Lys Thr Ile Asp Glu Glu Leu Glu Arg Asp Lys Arg 130 135 Val Thr Trp Ile Val Glu Phe Phe Ala Xaa Trp Ser Asn Asp Cys Gln 145 150 Ser Phe Ala Pro Ile Tyr Ala Asp Leu Ser Leu Lys Tyr Asn Cys Thr 160 165 170 Gly Leu Asn Phe Gly Lys Val Asp Val Gly Arg Tyr Thr Asp Val Ser 175 180 185 Thr Arg Tyr Lys Val Ser Thr Ser Pro Leu Thr Lys Gln Leu Pro Thr 195 200 Leu Ile Leu Phe Gln Gly Gly Lys Glu Ala Met Arg Arg Pro Gln 210 215

<210> 1075

<211> 153

<212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

<222> -17..-1

<400> 1075

Met Thr Met Tyr Leu Trp Leu Lys Leu Leu Ala Phe Gly Phe Ala Phe
-15 -10 -5

Leu Asp Thr Glu Val Phe Val Thr Gly Gln Ser Pro Thr Pro Ser Pro 1 5 10 15

Thr Gly Leu Thr Thr Ala Lys Met Pro Ser Val Pro Leu Ser Ser Asp
20 25 30

Pro Leu Pro Thr His Thr Thr Ala Phe Ser Pro Ala Ser Thr Phe Glu 35 40 45

Arg Glu Asn Asp Phe Ser Glu Thr Thr Thr Ser Leu Ser Pro Asp Asn 50 55 60

Thr Ser Thr Gln Val Ser Pro Asp Ser Leu Asp Asn Ala Ser Ala Phe
65 70 75

Xaa Thr Thr Gly Val Ser Ser Val Gln Thr Pro Xaa Leu Pro Thr His 80 85 90 95 Ala Asp Ser Gln Thr Pro Ser Ala Gly Thr Asp Thr Gln Thr Phe Ser

100 105 110

Gly Ser Ala Xaa Met Gln Asn Ser Thr Leu Pro Gln Ala Ala Met Leu 115 120 125

Ser Gln Met Ser Gln Glu Arg Gly Val

<210> 1076

<211> 42

<212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

<222> -17..-1

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<400> 1076
Met Thr Met Tyr Leu Trp Leu Lys Leu Leu Ala Phe Gly Phe Ala Phe
     -15
                 -10
Leu Asp Thr Glu Val Phe Val Thr Gly Gln Ser Pro Thr Pro Ser Pro
               5
                                   10
Thr Gly Val Ser Ser Val Gln Thr Pro Gln
              20
<210> 1077
<211> 87
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -17..-1
<400> 1077
Met Thr Met Tyr Leu Trp Leu Lys Leu Leu Ala Phe Gly Phe Ala Phe
     -15
                          -10
                                             -5
Leu Asp Thr Glu Val Phe Val Thr Gly Gln Ser Pro Thr Pro Ser Pro
                5
                                     10
Thr Gly Val Ser Ser Val Gln Thr Pro His Leu Pro Thr His Ala Asp
              20
                                 25
Ser Gln Thr Pro Ser Ala Gly Thr Asp Thr Gln Thr Phe Ser Gly Ser
                             40
Ala Xaa Met Gln Asn Ser Thr Leu Pro Gln Ala Ala Met Leu Ser Gln
Met Ser Gln Glu Arg Gly Val
 65
<210> 1078
<211> 42
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -36..-1
<400> 1078
Met Arg Gly Ala Thr Trp Pro Trp Pro Cys Leu Pro Ala Arg Thr Ser
                      -30
                           -25
Thr Ala Ala Ser Ile Ala Arg Leu Phe Leu Leu Ser Gly Thr Ile Trp
                  -15
Ile Ala Ile Cys Lys Pro Thr Thr Asn Gly
               1
<210> 1079
<211> 72
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -64..-1
<400> 1079
Met Gly Val Leu Pro Asp Leu Val Val Glu Ile Phe Gly Val Asn Lys
             -60
                      ~55
Cys Arg Leu Ser Trp Gly Leu Val Leu Glu Ser Leu Gln Gln Pro Leu
                              -40
```

```
517
Ile Asn Arg His Leu Ile Tyr Cys Leu Gly Asp Ile Ile Leu Xaa Xaa
                       -25
Leu Asp Leu Ser Ala Leu Leu Arg Ser Leu Leu Pro Xaa Leu Xaa
 -15 -10
Gln Ile Pro Gln Ala Thr Leu Arg
1 5
<210> 1080
<211> 42
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -15..-1
<400> 1080
Met Thr Ala Leu Gly Phe Val Leu Leu Ala Pro Arg Gly Trp Gly Ser
                  -10
                                    -5
Leu Thr Val Met Val Glu Gly Lys Glu Glu Gln Val Thr Ser Tyr Thr
       5
                          10
Asp Gly Ser Arg Gln Arg Asp Ser Asn Phe
<210> 1081
<211> 64
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -39..-1
<400> 1081
Met Lys Arg Ile Arg Arg Lys Arg Arg Asn Glu Val Thr Ile Gln Pro
              -35
                                -30
Phe Pro Ile Arg Leu Pro Leu Leu Pro Pro Leu Ile Ser Phe Leu His
          -20
                          -15
                                                -10
Thr Leu Gln Val Val Cys Ser Val Ile Met Lys Ser Ile Arg Lys Ala
                   1
Phe Val Leu Cys Gly Phe Leu Tyr Phe Glu Phe Phe Asp Gln Lys Leu
<210> 1082
<211> 59
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -22..-1
<400> 1082
Met Leu Pro Leu His Cys Phe Phe Xaa Val Xaa Leu Phe Xaa Xaa
                        -15
Val Xaa Val Xaa Xaa Ala Ala Leu Leu Arg Tyr Asn Xaa Ser Ile Gln
                     1
Xaa Gly Arg Ala Gln Xaa Leu Xaa Pro Xaa Ile Pro Xaa Leu Trp Glu
             15
                          20
Thr Lys Xaa Gly Arg Leu Leu Glu Pro Arg Asn
```

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<211> 30
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -21..-1
<400> 1083
Met Val Ser Val Phe Arg Ser Glu Glu Met Cys Leu Ser Gln Leu Phe
                      -15
                                          -10
Leu Gln Val Glu Ala Ala Tyr Cys Cys Val Ala Glu Leu Gly
                   1
                                  5
<210> 1084
<211> 41
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -28..-1
<400> 1084
Met Ala Ala Leu Arg Ser Thr Leu Thr Trp Thr Glu Val Val Gly Trp
        -25
                 -20
                                       -15
Trp Ser Val Ala Ser Leu Leu Ser Asp Val Ala Ala Trp Trp Pro Pro
His Ser Thr Ser Thr Arg Gly Gly Val
                  10
<210> 1085
<211> 47
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -44..-1
<400> 1085
Met Asn Ala Leu Val Asp Gly Lys Arg Leu Xaa Xaa Cys Ile Arg Tyr
               -40
                                  -35
                                                     -30
Phe Asp Ser Ile Ser Leu Tyr Ser Lys Ala Ser Leu Ser Cys Cys Leu
           -25
                              -20
                                         -15
Val Cys Val Phe Thr Cys Ser Leu Leu Ala Phe Phe Ser Pro Cys
<210> 1086
<211> 84
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -19..-1
Met Glu Phe Gly Leu Ser Trp Val Phe Leu Val Ala Ile Leu Lys Gly
               -15
                                  -10
Val Gln Cys Glu Leu Gln Val Val Glu Ser Gly Gly Leu Val Gln
           1
                        5
                                             10
Pro Gly Arg Ser Leu Arg Leu Ser Cys Arg Thr Ser Gly Phe Ala Phe
```

```
20
                                        25
Asp Asp Tyr Asn Leu Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
          35
                             40
Glu Trp Val Gly Phe Ile Arg Ser Lys Pro Tyr Gly Glu Thr Thr
                          55
Tyr Ala Ala Trp
           65
<210> 1087
<211> 19
<212> PRT
<213> Homo sapiens
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<221> SIGNAL
<222> -14..-1
<400> 1087
Met Ser Leu Phe Xaa Leu Xaa Xaa Leu Arg Gln Ser Phe Thr Xaa Xaa
            -10
                    -5
Ala Gln Ala
  5
<210> 1088
<211> 30
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -19..-1
<400> 1088
Met Ile Ser Ala His Cys Ser Phe Tyr Phe Leu Ala Ser Ser Ser Leu
           -15
                      -10
Ser Thr Ser Ala Ser Xaa Arg Thr Gly Ile Thr Asp Val Ser
                   5
        1
                                           10
<210> 1089
<211> 43
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -24..-1
<400> 1089
Met Asn Ala Glu Asn Asn Phe Phe Gly Phe Val Cys Leu Phe Val Phe
              -20
                                -15
                                      -10
Leu Tyr Thr Thr Pro Cys Asn Cys Phe Gly Leu Glu His Leu Trp Ile
          - 5
                            1
Leu Ser Phe Met Val Val Leu Gly Xaa Thr Arg
  10
<210> 1090
<211> 31
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
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<222> -23..-1

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<400> 1090
Met Thr Met Ala Val Gly Ala Ala Xaa Leu Pro Cys Cys His
         -20
                      -15
                                     -10
Leu Leu Thr Cys Val Ser Ser Leu Arg Xaa Asp Ile Tyr Pro His
               1
                                  5
<210> 1091
<211> 34
<212> PRT
<213> Homo sapiens
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<221> SIGNAL
<222> -25..-1
<400> 1091
Met Arg Arg Lys Arg Arg Glu Arg Lys Glu Arg Lys Ser Ile Leu Leu
-25
               -20
                                    -15
Ala Ala Leu Ser Arg Asn Ile Ser Pro Gly Gln Thr Tyr Arg Thr Ser
              - 5
                                 1
                                               5
Pro Ala
<210> 1092
<211> 30
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -23..-1
<400> 1092
Met Gly Ser Pro Tyr Val Ala His Val Gly Leu Glu Leu Leu Thr Ser
      -20
                  -15
Ser Asp Pro Pro Ser Leu Ala Ser Gln Val Leu Gly Ile His
<210> 1093
<211> 45
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -19..-1
<400> 1093
Met His Leu Tyr Thr His Val Cys Trp Leu Thr Leu Thr Leu Ala His
              -15
                               -10
Ser His Ser Leu Thr His Thr His Thr Leu Thr Pro Ser His Thr Arg
       1 5
Thr His Ser His Thr Cys Ala Cys Leu His Ala His Lys
 15
                      20
<210> 1094
<211> 51
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -15..-1
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<400> 1094 Met Arg Leu Ser Leu Thr Phe Tyr His Phe Pro Leu Cys Trp Gly His -10 -5 Gln Ala Val Pro Thr Trp Trp Xaa Xaa Ile Ile Gln Pro Cys His Cys 10 15 Ala Leu Cys Thr Ser Ala Glu Gly Val Gln Ser His Ile Ile Ser Xaa 25 Ile Tyr Arg 35 <210> 1095 <211> 80 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -14..-1 <400> 1095 Met Asn Val Leu Ile Ile Val Phe Val Ala Phe Ala Phe Gly Phe Leu Val Met Lys Ser Leu Leu Lys Pro Met Ser Arg Arg Val Phe Leu Met 10 Leu Ser Ser Arg Ile Phe Met Val Ser Gly Leu Arg Phe Lys Ser Leu 25 Ile His Leu Glu Leu Ile Phe Val Tyr Lys Leu Arg Asp Glu Asp Pro 40 4.5 Val Ser Phe Phe Tyr Met Trp Leu Ala Asn Tyr Pro Ser Thr Ile Cys <210> 1096 <211> 116 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -20..-1 <400> 1096 Met Ser Arg Arg Ser Met Leu Leu Ala Trp Ala Leu Pro Ser Leu Leu -10 -5 -15 Arg Leu Gly Ala Ala Gln Glu Thr Glu Asp Pro Ala Cys Cys Ser Pro 1 Ile Val Pro Arg Asn Glu Trp Lys Ala Leu Ala Ser Glu Cys Ala Gln 20 His Leu Ser Leu Pro Leu Arg Tyr Val Val Val Ser His Thr Ala Gly 35 Ser Ser Cys Asn Thr Xaa Ala Ser Cys Gln Gln Gln Ala Arg Asn Val 50 55 Gln His Tyr His Met Lys Thr Leu Gly Trp Cys Asp Val Gly Tyr Asn 65 70 Xaa Leu Asp Trp Arg Arg Ala Arg Ile Xaa Gly Pro Trp Xaa Glu 80 85 Leu His Gly Xaa 95 <210> 1097 <211> 19 <212> PRT <213> Homo sapiens

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<220>
<221> SIGNAL
<222> -14..-1
<400> 1097
Met Val Phe Leu Phe Leu Met Ile Ser Val Phe Ala Gly Cys Gln Ile
              -10
                                - 5
Pro Ser Gly
 5
<210> 1098
<211> 38
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -21..-1
<400> 1098
Met Gly Ser Arg Pro Val Ser Xaa Ala Gly Leu Glu Leu Leu Ala Ser
  -20 -15
                                      -10
Ser Asn Ser Ser Ala Leu Pro Phe Gln Cys Ser Gly Ile Thr Gly Met
                          5
-5 1
Ser Xaa His Thr Leu Ala
    15
<210> 1099
<211> 19
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -13..-1
<400> 1099
Met Leu Cys His Leu Ser Leu Val Phe Leu Gly Xaa Gly Gln Phe Trp
                            -5
Ser Gln Asn
5
<210> 1100
<211> 30
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -17..-1
<400> 1100
Met Thr Asn Leu Phe Met Cys Leu Phe Ala Ile Cys Ile Ser Ser Asn
  -15 -10
                              -5
Ala Lys Cys Leu Phe Ser Leu Phe Pro Phe Phe Ile Glu Gly
                                   10
<210> 1101
<211> 48
<212> PRT
<213> Homo sapiens
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<220>
<221> SIGNAL
<222> -27..-1
<400> 1101
Met Leu Gly Tyr Ile Trp Xaa Gln Asp Lys Val Phe Ala Asn Cys Val
     -25
                         -20
Leu Phe Thr Leu Leu Val Ser Thr Arg Ser Gly Arg Ser Arg Ala Gly
 -10 -5
                                       1
Cys Ala Trp Arg Trp Arg Gly Arg Trp Ser Val Gly Gln Lys Gly Xaa
              10
                               15
<210> 1102
<211> 28
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -15..-1
<400> 1102
Met Xaa Leu Ile Leu Ser Leu Gln Val Cys Arg Pro Ala Thr Leu Asp
-15 -10 -5
Gln Ala Thr Arg Ala Thr Thr Pro Cys Arg Leu Arg
                         10
<210> 1103
<211> 41
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -37..-1
<400> 1103
Met Cys His Arg Arg Trp Leu His Leu Ser Thr Arg His Leu Gly Phe
                         -30
Lys Pro Arg Ile His Tyr Val Phe Val Leu Met Leu Ser Leu Pro Leu
 -20
                     -15
Pro Pro Thr Pro Gln Gln Ala Leu Gly
                 1
<210> 1104
<211> 36
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -19..-1
<400> 1104
Met Asp His Val Val Ile Phe Val Ile Phe Pro Ala Ala Leu Leu Leu
              -15
                    -10
                                      -5
Cys Trp Gly Gly Leu Ile Pro Leu Cys Ile Ile Tyr Pro Pro Ile Ala
          1
                5
Asp Thr Val Gly
  15
<210> 1105
<211> 30
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<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -25..-1
<400> 1105
Met Leu Thr Asn Leu Phe Phe Gln Val Ala His Pro Leu Ile Ile Ile
-25 -20
                           -15
Leu Xaa Phe Asp Ile Tyr Ser Leu Ala Phe Ile His Asp Val
                                 1
<210> 1106
<211> 27
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -14..-1
<400> 1106
Met Leu Phe Gly Leu Arg Gly Met Leu Pro Leu Thr Gln Gln Ala Pro
            -10
                               -5
Ile Pro His Leu Arg Cys Lys Leu Ser Val Thr
                         10
<210> 1107
<211> 79
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -21..-1
<400> 1107
Met Arg Val Cys Met Arg Leu Cys Ala Cys Val Tyr Ala Cys Val Cys
                      -15
                           -10
Ala Ser Val Ser Ala Cys Val Tyr Xaa Cys Val Cys Met Xaa Val Arg
                  1
Ala His Leu Cys Val Cys Met Cys Val Cys Met Cys Val His Leu Cys
          15
                            20
Val Cys Met Cys Val Cys Val Cys Ala Ser Val Cys Val Cys Met Cys
                         35
Ala Cys Val Cys Met Cys Val Cys Val Arg Ala Ser Val Cys Val
                      50
<210> 1108
<211> 23
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -21..-1
<400> 1108
Met Val Ile Thr Ser Asn Ser Tyr Leu Ile Ala Asn Leu Val Leu Phe
                -15
Ile Ser Ile Ala Ala Leu Arg
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<210> 1109
<211> 57
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -51..-1
<400> 1109
Met Glu Glu Leu Asp Arg Lys Trp Arg Glu Lys Val Leu Pro Ala Ala
                      -45
                                        -40
Lys Leu Ile Lys Arg Arg Asn Leu Phe Ser Thr Cys Thr Pro Gln Tyr
                 -30
                                     -25
Gly Thr His Ala Ala Phe Leu Ser Leu His Ala Ser Leu Val Thr Lys
              -15
                                -10
Ala Phe Ser Ile Asn Ser Trp Glu Trp
           1
                      5
<210> 1110
<211> 27
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -25..-1
<400> 1110
Met Val Ser Gly Ala Gln Ala Pro Ser Ser Gln Arg Pro Leu Leu Leu
-25 -20 -15
Cys Pro Leu Ser Ser Gly Ser Pro Cys Pro Arg
              - 5
<210> 1111
<211> 32
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -27..-1
<400> 1111
Met Ser Cys Leu Leu Arg Ala Tyr Ile Ile Trp Ile Phe Pro Ser Phe
  -25 -20
                                   -15
Leu Pro Ser Leu Leu Ser Ser Phe Leu Leu Ser Leu Pro Pro Ser Gly
  -10
                    -5
                                     1
<210> 1112
<211> 67
<212> PRT
<213> Homo sapiens
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<221> SIGNAL
<222> -36..-1
<400> 1112
Met Phe Gln Leu Leu Ile Leu Cys Gln Met Asn Ser Leu Lys Ile Phe
            -30
                                       -25
Ser Pro Ile Leu Gly Trp Ser Leu His Phe Val Tyr Cys Phe Leu Cys
```

```
-10
                 -15
Cys Ala Glu Ala Phe Leu Leu Asp Met Ile Pro Phe Met Gln Phe Tyr
             1 5
Phe Gly Tyr Leu Cys Leu Trp Gly Ile Thr Leu Lys Ile Phe Ala Gln
                        20
Ser Asn Trp
  30
<210> 1113
<211> 54
<212> PRT
<213> Homo sapiens
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<221> SIGNAL
<222> -48..-1
<400> 1113
Met Ala Leu Leu Gly Lys Arg Cys Asp Val Pro Thr Asn Gly Cys Gly
    -45
                  -40
Pro Asp Arg Xaa Xaa Xaa Gly Xaa Asn Pro Gln Xaa Arg Asp His His
 -30
                        -25
                                        -20
Gln Xaa Xaa Val Cys Leu Arg Leu His Val Leu Ser Ala Val Gln Thr
           -10
 -15
Glu Arg Arg Gly Asp Gly
<210> 1114
<211> 37
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -32..-1
<400> 1114
Met Arg Pro Ala Leu Arg Ser Phe Trp His Ser Ser Gly Gly Pro Pro
                                 -20
   -30 . −25
Pro Ser Ala Thr Leu Ala Leu Leu Ser Ser Asp Ser Val Ala Thr Gly
-15
                     -10
Ser Val Val Ser Arg
<210> 1115
<211> 49
<212> PRT
<213> Homo sapiens
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<221> SIGNAL
<222> -26..-1
<400> 1115
Met Leu Cys Ala Cys Lys Ala Arg Gly Val Met Leu Leu Leu Phe Ser
                     -20
                                       -15
Gly Trp Leu Val Trp Trp Gly Ser Arg Ser Ser Gln Xaa Leu Arg Met
                 -5
                                   1
Pro Glu Xaa Xaa Val Ser Gly Glu Gly Arg Ser Asp Xaa Xaa Pro His
          10
                             15
Gly
<210> 1116
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<211> 51
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -42..-1
<400> 1116
Met Ile Ser Ser Ser Leu Ser Gly Arg Val Pro Val Ile Leu Gly Asn
                        -35
                                         -30
Leu Met Gly Val Gly Ala Ala Val Arg Arg Met Gly Phe Ser Leu Ile
 -25 -20
                                -15
Leu Pro Thr Ser Pro Ser Pro Ala His Ser Gly Ser Ala Pro Ser Ala
             - 5
Gly Pro Arg
<210> 1117
<211> 56
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -46..-1
<400> 1117
Met Gly Ile Ile Gln Xaa Ile Leu Ala Thr Ser Arg Asp Cys Tyr Ser
          -40 . -35
Phe Lys Lys Pro Ile Pro Lys Lys Pro Thr Met Leu Ala Leu Ala
-30 -25 -20
Lys Ile Leu Leu Ile Ser Thr Leu Phe Tyr Ser Leu Leu Ser Gly Ser
                             -5
      -10
His Gly Lys Xaa Asn Gln Asp Val
<210> 1118
<211> 29
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -23..-1
Met Met Leu Ser Thr Phe Ser Tyr Ala Cys Leu Pro Phe Val Cys Leu
      -20
              -15
Leu Leu Arg Asn Val Tyr Ser Asp Leu Leu Pro Asn Arg
     -5
                 1
<210> 1119
<211> 30
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -24..-1
<400> 1119
Met Leu Ala Ile Leu Thr Gly Gly Arg Trp Tyr Leu Ile Val Val Leu
                             -15
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Val Cys Ile Ser Leu Val Ile Ile Asp Asp Asp Glu His Gly
    -5
                   1
<210> 1120
<211> 18
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -14..-1
<400> 1120
Met Leu Pro Leu Gly Leu Lys Val Leu Gly Leu Gln Ala Arg Gly
              -10
Thr Thr
<210> 1121
<211> 48
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -28..-1
<400> 1121
Met Arg Pro Thr Met Glu Phe His Ser Val Leu Cys Gly Val Thr Pro
                             -20
Thr Leu Leu Val Met Trp Leu Ser Pro Gln Met Ala Ser Ser Pro Ser
                      - 5
                                  1
Gln Ala Pro Gly Met Glu Pro Cys Ala Ser Gly Ile Ser Gln Arg Ala
               10
                                 15
<210> 1122
<211> 52
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -33..-1
<400> 1122
Met Gly Lys Lys Ile Trp Thr Pro Ser Ser Tyr Pro Met Pro Ser
          -30
                -25
His Lys His Val Ser Leu Cys Leu Leu Thr Val Ala Val Leu Val Leu
                       -10
                                         -5
Thr Phe Lys Ser Leu Ile His Phe Glu Xaa Ile Phe Ala Tyr Glu Ile
                          10
                5
Gly Val Gln Gly
<210> 1123
<211> 31
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -24..-1
<400> 1123
Met Ser Pro Val Leu Cys Phe His Arg Cys Ser Cys Pro Ser Leu Leu
```

```
529
                                 -15
              -20
Ser Pro Ile Ser Pro Ser Gln Ala Cys Pro Glu Pro Leu Leu Gly
                             1
<210> 1124
<211> 34
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -24..-1
<400> 1124
Met Leu Gln Leu Ser Phe Ser Val Phe Ile Leu Ile Met Phe Val Cys
                  -15 -10
          -20
Met Cys Val Cys Val Cys Val Tyr Arg Leu Phe Ser Ser Ser
          -5
                            1
Ser Pro
 10
<210> 1125
<211> 101
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -91..-1
<400> 1125
Met Lys Ser Thr Val Ser Ser Arg Glu Val Ala Thr Val Asp Lys Met
                      -85
                                        -80
Lys Arg Arg His Ala Glu Tyr Cys Ala Gln Gly Leu Gln Arg Phe Lys
                  -70
                                    -65
Ala Gln Leu Ser Gln Asp Thr Leu Pro Xaa His Pro His Leu Glu Xaa
                                -50
             -55
Glu Lys Gly Leu Glu Gly Leu Glu Glu Asn Val Pro Leu Lys Gly Glu
          -40
                             -35
                                               -30
Lys Pro Gly Glu Gly Pro Glu Ser Pro Lys Lys Arg Arg Arg Val
                        -20
                                         -15
Leu Leu Gly Ala Gly Ile Pro Pro Val Ser Ser Ala Pro Arg Arg Gln
Ser Gln Gln Ala Thr
              10
<210> 1126
<211> 36
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -20..-1
<400> 1126
Met His Asn Ser Cys Arg Pro Val His Leu Phe Phe Phe Phe Xaa
                          -10
               -15
Glu Thr Gly Ser Arg Ser Asn Xaa Trp Leu Glu Xaa Ser Gly Ala Ile
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Ile Ala Asn Ser
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WO 99/53051 530 <210> 1127 <211> 44 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -42..-1 <400> 1127 Met Glu Ala Tyr Leu Asn Asp Ser Leu Leu Thr Pro Ser Asp Ser Pro -35 -30 Asp Phe Glu Ser Val Gln Ala Gly Pro Xaa Ala Arg Pro Thr Phe Arg -25 -20 -15 Leu Tyr Leu Ser Leu Pro Val Ser Gln Ala Gly Pro -10 -5 <210> 1128 <211> 70 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -14..-1 <400> 1128 Met Pro Ala Leu Gly Pro Ala Leu Leu Gln Gly Ser Leu Xaa Arg Val -10 -5 Gly Pro His Pro Pro Ala Pro Ser Thr Asn Cys Ile His Ser Gln Trp 10 His Val Ser Ala Ala Xaa Gly Lys Gly Pro His Leu Arg His Pro Leu 20 25 30 Xaa Gly Xaa Tyr Gln Leu Pro Val Pro Ala Glu Pro Trp Ala Ala Ala 45 Gly Gly His Ser Val His <210> 1129 <211> 21 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -19..-1 <400> 1129 Met Val Gly Ile Leu Pro Leu Cys Cys Ser Gly Cys Val Pro Ser Leu -10 Cys Cys Ser Ser Tyr 1 <210> 1130 <211> 22 <212> PRT <213> Homo sapiens <220> <221> SIGNAL

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His Asp Gly Tyr Phe Met Leu Ile Ile Leu Ser Ala Ile Leu Leu Asn

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-5
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Gly
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Met Leu Thr His Gly Ala Ser Leu Ser Leu Val Ile Phe Leu Leu Thr
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Val Lys His Cys Phe Arg Tyr Arg Val Tyr Lys Thr
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Met Ser Ser Val Glu Thr Asp Trp Gly Phe Trp Thr Ser Ile Pro Ile
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Leu Pro Leu Ser Ser Gly Arg Gln Leu Pro Leu Pro Thr Arg Glu Trp
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Gly Met Trp
<210> 1137
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Met Phe Ala Ser Pro Arg Arg Trp Ser Ser Xaa Lys Ala Phe Ser Gly
     -30
                             -25
Gln Arg Thr Leu Leu Ser Ala Ile Leu Ser Met Leu Ser Leu Ser Phe
      -15
                         -10
Ser Thr Thr Ser Leu Leu Ser Asn Tyr Trp Phe Val Gly Thr Gln Lys
                                     10
Val Pro Lys Pro Leu Cys Glu Lys Gly Leu Ala Ala Lys Cys Phe Asp
                                 25
Met Pro Val Ser Leu Asp Gly Asp Thr Asn Thr Ser Thr Gln Glu Val
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Val Xaa
<210> 1138
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533 <220> <221> SIGNAL <222> -16..-1 <400> 1138 Met Pro Ile His Ser Val Phe Leu Cys Ala Pro Ala Leu Val Phe Pro -10 Arg Pro Val Ala Trp Lys Ala Glu Arg Pro Ser Leu Cys Phe Gly Ala 10 5 Ser Leu Pro Pro Leu Gly Arg Ser Leu Leu Gly Gln Gly Ser Ser Phe 20 25 Ile Ser Trp Gly Thr Gln Ala Ala Ile Val Glu Leu Xaa Pro His 40 <210> 1139 <211> 80 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -62..-1 <400> 1139 Met Val Tyr Asp Glu Lys Ser Leu Ser Cys Ser His Thr Pro Ala Thr -55 -50 -60 Gln Phe Leu Ser Trp Asp Ala Ser Ser Val Tyr Ser Phe Leu Tyr Ile -40 -35 Leu Ser Ala Arg Val Asn Val Asp Val Xaa Xaa Tyr Ile Arg Val Tyr -20 -25 Ile Leu Ala Cys Val Phe Phe Leu Ser His Pro Leu Phe Xaa Xaa Pro -5 -10 1 Asn Gly Ser Val Tyr Cys Xaa Arg His Ser Pro Pro Tyr Leu Phe Cys 10 <210> 1140 <211> 38 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -36..-1 <400> 1140 Met Leu Pro Leu Ser Pro Thr Lys Phe Leu Asn Val Phe Leu Gly Leu -30 -25 Phe Leu Tyr Tyr Leu Gln Leu Val Cys Leu Leu Ile Ile Ser Leu Val -15 Leu Ile Ser Gly Leu Gly 1 <210> 1141 <211> 48 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -29..-1

Met Asp Lys Val Glu Leu Pro Pro Pro Asp Leu Gly Pro Ser Ser Ala

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534
              -25
                                -20
Leu Asn Gln Thr Leu Met Leu Leu Arg Glu Val Leu Ala Ser His Asp
   -10 -5
Ser Ser Val Val Pro Leu Asp Ala Arg Gln Ala Asp Phe Val Gln Gly
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Met Gly Gly Thr Ala Gly Trp Ser Ser Gln Asn Thr His Asn Ile Xaa
  -30
                        -25
                                   -20
Val His His Leu Val Trp Leu Trp Phe Val Val Pro Gln Thr Ile Thr
                    -10
                                       -5
Met Ile Thr Pro Lys Ile Thr Glu His Arg Pro Xaa Ile Thr Asp Xaa
                          10
Xaa Ile Met Xaa Thr Phe Glu Xaa Leu Gly Glu Leu Pro
. 20
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Met Cys Leu Ser Val Ala Leu Tyr Leu Cys Val Cys Val Cys
      -15 -10
Leu Ile Ala Arg Val Tyr Phe Cys Ile Tyr Val Cys Val Trp
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Met Leu His Leu Leu Phe Gly Leu Phe Pro Val Leu Trp Met Phe Leu
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                    -5
Val Tyr Phe Phe Leu Ser Ser Phe Phe Phe Phe Phe
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<212> PRT
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                            -10
Cys Ala Phe Phe Phe
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Met Lys Xaa Asn Asn Leu Arg Arg Gln Ser Pro Ala Leu Arg His Cys
                  -30
 -35
                                       -25
Trp Arg Xaa Glu Thr Asp Phe Phe Leu Phe Thr Leu Ile Gly Ala Ser
               -15
                         -10
Leu Leu Gln Ser Ala Ser Gly Pro Cys Arg Ile Ser Xaa Xaa Leu Lys
             1
                     . 5
Trp His Ser Lys Gly Thr Leu
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Met Trp Pro Lys Xaa Gly Leu Leu Gly Leu Gly Leu Pro Leu Leu Pro
                      -10
-20 -15
Pro Asn His Pro Ser Val Ala Gln Gly Thr Leu Val Ser Ser His Ser
                  5
Gly Ser Gly Ser Glu Gly Arg Val Ala Leu Arg Ser Asp Val His Ser
     15
                         20
Pro Lys Thr Thr Xaa Gln
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Met Tyr Leu Ile Arg Glu Ser His Ala Ser Gly Ser Ser Ser Val Thr
                                    -30
     -40
                  -35
Ser Ser Cys Ser Leu Xaa Ser Xaa Ser Pro Asn Pro Gln Ala Met Ala
                     -20
                                       -15
Xaa Leu Phe Leu Ser Ala Pro Pro Gln Ala Glu Val Thr Phe Glu Asp
-10 -5
                                   1
Val Ala Val Tyr Leu Ser Arg Glu Glu Trp Gly Arg Leu Gly Pro Ala
                            15
       10
```

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Gln Arg Gly Xaa Tyr Arg Asp Val Met Leu Glu Thr Tyr Xaa Asn Xaa
                           30
Val Ser Leu Gly Val Gly Pro Ala Gly Pro Lys Xaa Gly Val Ile Ser
                      45
Gln Leu Glu Arg Gly Asp Glu Pro Trp Val Leu Asp Val Gln Gly Thr
                   60
                                     65
Ser Gly Lys Glu His Leu Lys Lys Ser Thr Ala Gln Leu Leu Gly Pro
               75
                                 80
Glu Leu Lys Tyr Lys Glu Leu
          90
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Met Ile Pro Arg Arg Thr Ser Ala Ser Arg Ala Pro Ser Val Pro Gln
       -35
                           -30
Asn Ala Gly Leu Ser Pro Leu Pro Ala Leu Ser Ser Leu Cys Val Ser
                      -15
                                    -10
Trp Gly Thr Ser Ser Thr Val Thr Arg Leu Arg Pro Trp Ile Ser Pro
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Thr Trp Thr Ser Arg Ala Arg
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               -10 -5
Arg Ser Gln Asp Phe Leu Leu Asp Phe Ser Arg His Xaa Ile Gly Leu
                          10
Gly Phe Thr Phe Arg Ser Ala Met His Phe Glu Asn Phe Arg Leu Xaa
                      25
Gly Leu Gly Gln Asp Ser Leu Cys
                   40
<210> 1151
<211> 25
<212> PRT
<213> Homo sapiens
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Met Xaa Xaa Tyr Xaa Xaa Gly Phe Cys Ser Val Thr Ser Ser Pro
                                   -10
             -15
Leu Ala Ser Ala Gly Arg Thr Thr Arg
               1
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<213> Homo sapiens
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Met Ser Leu Xaa Xaa Leu Cys Asp Pro Asp Leu Val Pro Cys Pro Leu
    -20 -15
                               -10
Leu Ile Ser Val Ala Leu Ser Val Lys Phe His Ile Xaa Gln Gln Val
 -5
                    1
Asn Leu Pro Cys Ser Ser
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<212> PRT
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      -35 -30 -25
Asn Pro Lys Pro Val Thr Val Pro Ala Phe Leu Xaa Pro Cys Leu Thr
                    -15 -10
Ser Phe Ser Cys Xaa Gly Ala Ser Phe Ser Leu Xaa Gly Xaa Arg Arg
-5 1 5
Gly Trp Gln His Gly Ser Cys Cys Ser Thr Ile Pro Leu Phe Xaa Thr
10
   15
                       20
Leu Asn Ser Leu Gly Gln Gly Leu Ile Gly Pro Ala Tyr Ile Gly Ala
             30
                             35
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Met Ser Thr His Ala Ile Ser Ile Leu Leu Cys Ile Gly Ala Ser Ser
            -10
 -15
Gln Gly Arg
<210> 1155
<211> 67
<212> PRT
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Met Glu Glu Glu Thr Glu Glu Val Gly Gly Arg Ser Ser Arg Lys
 -30 -25
                                      -20
Asn Ala Ala Thr Val Asn Ala Ala Ser Leu Pro Pro Cys Phe Gly Val
              -10 -5
Lys Ser Cys Arg Cys Arg Cys Ser Cys Arg Arg Cys Leu Leu Tyr
Phe Ser Trp Pro Arg Gly Arg Ile Ser Pro Pro Val Gly Gln Cys Ala
                      25
Gly Arg Gly
  35
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Met Arg Gly Ile Gln Ala Lys Gly Ser Pro Gly Gln Ser Ser Ala Xaa
          -30
                            -25
Val Leu Xaa Pro Cys Cys Cys His Ala Gly Ala Ser Ser Gly Ala Thr
 -15
                        -10
Ala Trp Glu Glu Thr Pro Arg Ser Arg Cys His Ile Ala Val Xaa Ser
                                  10
Thr Asn Thr Ala Ser Arg Gly Arg Thr Trp Cys Arg Ala Thr Gly Pro
Cys Pro Ser Gly Pro Thr Arg Gly Val Ser Arg Ser Arg Gly Leu Gly
               40
Ala Gly Phe Leu Ser Pro Phe Cys Cys Leu Phe Ala Phe His Pro Arg
                     55
Leu Pro Trp Cys Ala Glu Val Pro Val Pro Ala Ala Ala His His Met
Arg Cys Gly Gly Asp Leu Leu Ala Ala Pro Pro Pro Gly Pro Ser Trp
                               90
Phe Ala Arq Phe Pro Pro Leu Val Pro Glu Ser Phe Pro His His Ser
             100
                     105
Val
<210> 1157
<211> 34
<212> PRT
<213> Homo sapiens
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<221> SIGNAL
<222> -24..-1
<400> 1157
Met Phe Ser Ser Arg Ser Phe Met Val Ser Gly Leu Ile Trp Val Phe
          -20 -15 -10
Gly Leu Val Ser Val Leu Ser Xaa Phe Leu Cys Met Val Tyr Asp Gln
                            1
Gly Gln
 10
<210> 1158
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<212> PRT
<213> Homo sapiens
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<222> -13..-1
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Met Leu Leu Ala Val Ser Leu Ser Leu Val Ser Asn Cys Asn Phe Val
 -10 -5
Leu Thr Asp Gln Leu Phe Pro Ala Pro Ala Ser Leu Ile Pro Glu
 5 10
                           15
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<211> 41
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Met Asn Gln Asp Phe Asn Pro Glu Ile Glu Ala Ser Pro Gln Val Lys
            -25 -20 -15
Thr Gly Val Phe Leu Phe Ser Ile Ile Gly Ser Phe Gly Phe Pro Gly
 -10 -5
Met Cys Asn Cys Lys Asn Pro Ala Arg
              10
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<213> Homo sapiens
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-20 -15
Leu Ser Leu Thr Ser Val Pro Gly
            1
<210> 1161
<211> 31
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Met Phe Phe Gly Tyr Ser Glu Asp Ile Tyr Cys Val Ser Gly Pro
    -25
                -20
Val Leu Ser Cys Cys Cys Leu Thr Ala Gly Arg Ala Arg Leu Trp
<210> 1162
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                   -10
Ser Pro Pro Ala Ser Leu Glu Ala Ser Ser Asn Val Tyr Leu Gln Glu
1 5
                    10
Ser Arg Ala Ala Tyr Ala Ser Val Pro Ala Gly Pro Glu Val Ala Thr
       20
                 25
Gln His Thr Ser Ser Pro Val Thr Pro Met
                   40
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<221> SIGNAL
<222> -18..-1
<400> 1163
Met Gln Leu Leu Tyr Leu Thr Tyr Ser Leu Ala Phe Leu Leu Phe Ile
    -15
                  -10
Lys Ala Gly Thr
   1
<210> 1164
<211> 24
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<213> Homo sapiens
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<222> -20..-1
<400> 1164
Met Ala Pro Ser Arg Pro Arg Ala Ala Ala Val Thr Ser Ser Ala Ala
-20 -15
                                  -10
Pro Ser Arg Ala Arg Gln Gly Ala
             1
<210> 1165
<211> 57
<212> PRT
<213> Homo sapiens
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<221> SIGNAL
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Met Leu Ala Ser Ala Pro Arg Leu Asn Ser Ala Asp Arg Pro Met Lys
 -40 -35 -30
Thr Ser Val Leu Arg Gln Arg Lys Gly Ser Val Arg Lys Gln His Leu
                    -20
                                    -15
Leu Ser Trp Ala Xaa Gln Xaa Gly Arg Xaa Gln Val Val Glu Ile Leu
          -5
Gln Ser Glu Lys Gln Thr Xaa Xaa Asp
         10
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<211> 47
<212> PRT
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<220>
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Met Tyr Pro Leu Gly Arg Gly Glu Gln Gly Pro Ala Ala Pro Lys Ser
                             -30
Trp Leu Leu Pro Thr Thr Leu Ala Leu His Gly Ser Leu Asp Ala
 ~20
                          -15
Val Ser Gln Ala Gln Gly Arg Pro Gly His Pro Asp Ala Pro Pro
  -5 1
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Met Arg Val Phe Ile Ala Ala Leu Phe Thr Ile Ala Glu Thr Trp Asn
 -15
                    -10
Gln Pro Lys Cys Pro
<210> 1168
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Met Ala Lys Gly Leu Arg Val Asn Leu Gly Glu Leu Val Glu Ser Met
              -25 -20
Arg Leu Cys Phe Leu Ser Val His Phe Arg Leu Arg Trp Gly Asp Ser
                              -5
              -10
Cys Pro Ser Ser Pro His Arg Glu Thr Phe Pro Ala Gly Pro Val Asn
    5
                         10
Gly Pro Leu Tyr His Pro Arg
  20
<210> 1169
<211> 87
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Met Pro Ser Pro Gln Leu Leu Val Leu Phe Gly Ser Gln Thr Gly Thr
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Ala Gln Asp Val Ser Glu Arg Leu Gly Arg Glu Ala Arg Gly Arg Arg 10 Leu Gly Cys Arg Val Gln Ala Leu Asp Ser Tyr Pro Val Val Asn Leu 20 25 Ile Asn Glu Pro Leu Val Ile Phe Val Cys Ala Thr Xaa Gly Gln Gly 35 40 Asp Pro Pro Asp Asn Met Lys Asn Phe Trp Arg Phe Ile Phe Arg Lys 55 Asn Leu Pro Ser Thr Ala Arg <210> 1170 <211> 48 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -41..-1 <400> 1170 Met Ser Ser Ile Leu Gly Val Ser Ser Ser Trp Trp Tyr Leu Tyr Tyr -35 -30 Gly Tyr Cys Ile Phe Val Lys Lys Cys Ser Phe Cys Ser Phe Leu Phe -20 -15 Leu Ala Cys Ile Phe Gln Gly Xaa Ser Xaa Xaa Xaa Asn Thr Gln Ser -5 1 <210> 1171 <211> 51 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -28..-1 <400> 1171 Met Gly Ser Val Leu Gly Leu Cys Ser Met Ala Ser Trp Ile Pro Cys -25 -20 -15 Leu Cys Gly Ser Ala Pro Cys Leu Leu Cys Arg Cys Cys Pro Ser Gly -5 Asn Asn Ser Thr Val Thr Arg Leu Ile Tyr Ala Leu Phe Leu Leu Val 10 15 Gly Val Trp <210> 1172 <211> 109 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -46..-1 <400> 1172 Met Ser Xaa Xaa Xaa Arg Leu Xaa Arg Gln Leu Leu Ser Gln Xaa Arg -40 -35 Xaa Met Thr Cys Glu Asn Glu Ala Gly Ala Gln Cys Gln Lys Ser Ser -25 -20 Phe Ile Gly Ser Cys Ser Val Met Ser Ser Gly Ala Leu Cys Val Pro -10

Leu Tyr Tyr Leu Ala Lys Gly Asn Met Cys Ser Ile Cys Gly Met Leu

```
10
Lys Glu Met Asn Gly Leu Trp Ser Glu Cys Asp Ser Leu Lys Asn Thr
                  25
Phe Ile Val Trp Xaa Cys Ile Phe Ser Cys Leu Gly Met Gln Leu Xaa
35 40
                             45
Ser Ser Xaa Val Ser Asn Val Arg Leu Leu Ser His
             55
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Met Pro His Pro Leu Ala Thr Ser Ala Phe Leu Arg Ser Ala Phe Pro
 -25 -20
                                -15
Phe Val Cys Leu Thr Phe Cys Val Gly Gly Pro Gly Ile Ser Gly
       -5
Val Tyr Arg Leu Leu Met Ala Asn Ala Thr Arg Arg Glu Ser Glu Val
       10
                     15
Ser Leu Arg Gly Leu Gly Arg Asp Gly Glu Gly Ala Arg Ala Thr Pro
<210> 1174
<211> 27
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<221> SIGNAL
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Met Thr Val Gly Leu His Ile Leu Arg Asp Ser Leu Met Val Phe Leu
   -20 -15
Asn Leu Phe Phe Leu Asn Cys Asp Pro His Arg
                        1
<210> 1175
<211> 35
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Met Val Arg Trp Gly His Pro Pro Met Phe Cys Val Ser Leu Leu Leu
                 -15
                                -10
His His Ala Tyr Pro Leu Pro Ser Thr Met Ile Val Ser Phe Pro Arg
                1
                               5
Pro Pro Leu
<210> 1176
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                   -20
Cys Phe Gly Cys Pro Gly Gly Ala Ser Ser Arg Cys Arg Ser Pro Arg
              -5
                         1
Gly Arg Gln Ala Ser Arg Val Pro Arg Leu Glu Asn Gly Ala Gln Arg
       10
                        15 20
Val Val Arg Thr Met Val His Leu Val Leu Gln Pro Lys Arg Val Thr
 25
                 30
                                35
Leu Val His Pro Pro Arg Gly Leu Glu Pro Val Cys Thr Pro Ile Ala
              45
                             50
Xaa Met Xaa Pro Lys Ser His Gly Leu Arg Ser Ser Leu
<210> 1177
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Met Gly Val Val Ser Gly Gly Val Gly Asp Leu Thr Thr Lys Thr Gln
          -30 -25
Glu Asn Gly Leu Leu Pro Xaa Leu Leu Ser Xaa Leu His Gly Leu Leu
       -15
                           -10
Tyr Gly Ser Pro Asp Ala Glu Leu Thr Gly Pro Asp Pro Trp Asp
      1 5
<210> 1178
<211> 17
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Met Gly Phe Leu Ser Xaa Thr Cys Val Leu Ser Cys Xaa Arg Ser Leu
                -10
Ser
<210> 1179
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<212> PRT
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Met Glu Tyr Gly Ser Ala Lys Leu Ser Ser Gly Arg Val Phe Tyr Leu
             -35 -30
                                        -25
Pro Arg Asp Phe Gly Ile Glu Arg Arg Val Leu Val Cys Phe Phe Asn
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Ser Val Ser Phe Leu Phe Gly Val Ser Xaa Lys Lys Ser Xaa Gln Trp
                          1
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<211> 17
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
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Ala
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<211> 23
<212> PRT
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<222> -16..-1
<400> 1181
Met Arg Leu Val Phe Phe Xaa Gly Xaa Ser Ile Ile Leu Val Leu Gly
            -10
Ser Thr Phe Xaa Ala Tyr Leu
             5
<210> 1182
<211> 35
<212> PRT
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<400> 1182
Met Leu Ser Ser Asp Phe Phe Leu Leu Phe Val Ser Leu Ser Leu Ser
 -15 -10 -5
Pro Phe Pro Phe Leu Phe Pro Pro Leu Phe Ser Cys Phe Leu Leu
              5
Pro Thr Arg
<210> 1183
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Met Phe Ile Ala Ala Leu Phe Thr Val Ala Lys Ile Trp Asn Gln Pro
              -10
                                 -5
Lys Cys Pro Ser Thr Asp Glu Trp Ile Asn Lys Met Trp Tyr Ile Tyr
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Thr Met Glu Tyr Tyr Pro Asp Ile Lys Lys Asn Gly Ile Leu Thr Phe
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Lys Ala Thr Arg Met Asn Arg Lys Thr Leu
<210> 1184
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Val Cys Ile Tyr Ile Xaa Val Tyr Val Cys Thr Cys Val Arg Gly
<210> 1185
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Met Gly Val Arg Thr Val Cys His Phe Ile Gln Val Phe Leu Ser Leu
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Phe Val Phe Phe Trp Leu Val Gly Phe Ser Phe Phe Phe Leu Xaa
-10 -5
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Phe Ser Thr Lys Gln Val Arg Val Glu Gln His Cys Asp Phe Lys Ser
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Thr Pro Xaa Val Glu Ser Ser Ser Thr Val Gly His Ala
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Met Tyr His Ile Leu Phe Ile His Ser Phe Ile Asp Arg Tyr Leu Ser
     -25
                         -20
                                           -15
Cys Phe Tyr Leu Leu Ala Ile Val Ser Asn Ala Val Met Asn Met Gly
                   - 5
Val Gln Met Ser Val Leu Ser Pro Cys Phe Ala Phe Val His Ser Ile
          10
                              15
Lys Asn Val Lys Val Leu Cys Phe Leu Leu Phe Phe Leu Phe Gly
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<210> 1187
<211> 37
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Met Gln Phe Thr Val Leu Met Cys Pro Val Gln Trp Leu Leu Val Tyr
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Ser Pro Ser Cys Ala Ala Thr Ile Thr Val Asn Phe Lys Thr Phe Ser
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-5
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Ser Pro Gln Thr Gly
<210> 1188
<211> 40
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<400> 1188
Met Arg Arg Ala Trp Thr Gln Glu Arg Glu Pro Arg Pro Cys Glu Pro
    -35 -30
                                           -25
Ala Glu Arg Ala Asp Pro Ala Pro Val Ser Cys Leu Ser Ala Gly Leu
                     -15
Arg Val Cys Cys Ser Gln Arg Ser
<210> 1189
<211> 37
<212> PRT ·
<213> Homo sapiens
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<222> -25..-1
<400> 1189
Met Leu His Leu Ile Cys Ile Ser Leu Ile Val Asn Asp Phe Phe Ile
-25 -20 -15 -10
Cys Leu Leu Ala Ile Cys Val Ser Ser Phe Glu Asn Cys Leu Phe Met
                                1
Ser Leu Ala His Ser
      10
<210> 1190
<211> 96
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<221> SIGNAL
<222> -63..-1
<400> 1190
Met Arg Ser Glu Arg Pro Met Val Trp Cys Cys Leu Phe Val Arg Ser
         -60
                            -55
Gln Arg Lys Arg Lys Gln Ser Thr Gln Asp Glu Asp Ala Val Ser Leu
     -45
                         -40
                                           -35
Cys Ser Leu Asp Ile Ser Glu Pro Ser Asn Lys Arg Val Lys Pro Leu
               -25
                                       -20
Ser Arg Val Thr Ser Leu Ala Asn Leu Ile Pro Pro Val Lys Ala Xaa
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- 5

Pro Leu Lys Arg Phe Ser Gln Thr Leu Gln Arg Ser Ile Ser Phe Arg 10 Ser Glu Ser Arg Pro Asp Ile Leu Ala Pro Arg Pro Trp Ser Arg Asn 20 25 30

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<222> -20..-1

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Met Val Phe Trp Thr Lys Phe Cys Ile Leu Ile Ser Thr Ala Phe Pro -15 -10

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Gln Phe Phe Trp Asn Arg Glu Lys Gln Lys Thr Lys Thr Pro Thr Gly

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Met Ala Ser Leu Cys Cys Gly Pro Lys Leu Ala Ala Cys Gly Ile -35 -30 -25

Val Leu Ser Ala Trp Gly Val Ile Met Leu Ile Met Leu Gly Ile Phe -15 -10

Phe Asn Val His Ser Ala Val Leu Ile Glu Asp Val Pro Phe Thr Glu 1

Lys Asp Phe Glu Asn Gly Pro Gln Asn Ile Tyr Asn Leu Tyr Glu His 20

Gly

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<211> 28

<212> PRT

<213> Homo sapiens

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<222> -16..-1

<400> 1193

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Arg Xaa Thr Ser Gly Xaa Gln Asp Leu Pro Asn Trp

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WO 99/53051 549 <221> SIGNAL <222> -39..-1 <400> 1194 Met Gln Ala Cys Tyr Met Gly Met Trp Tyr Thr Ala Glu Ala Trp Gly -30 -35 Thr Ile Glu Ser Leu Thr Gln Val Val Ser Val Ile Ala Ile Val Ser -20 -15 Phe Thr Thr Leu Cys Ser Ser Leu Tyr Ser Pro Gln Val Val Pro Ser 1 Val Gly 10 <210> 1195 <211> 67 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -62..-1 <400> 1195 Met Met Leu Arg Gly Gly Gly Thr Phe Lys Xaa Cys Leu Ser His Glu -55 Gly Ser Ser Phe Thr Lys Gly Leu Ala Gln Glu Cys Val Ser Xaa Ser -35 -40 Cys Gly Thr Arg Leu Ile Thr Ala Val Ala Ser Xaa Tyr Lys Ala Arg ~25 -20 Leu Pro Leu Ala Ala Cys Pro Leu Leu Pro Ile Phe Ser His Ala -10 - 5 Arg Ser Ser 5 <210> 1196 <211> 68 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -40..-1 <400> 1196 Met Ala Lys Asn Pro Pro Glu Asn Cys Glu Asp Cys His Ile Leu Asn -35 -30 Ala Glu Ala Phe Lys Ser Lys Lys Ile Cys Lys Ser Leu Lys Ile Cys -20 -15 Gly Leu Val Phe Gly Ile Leu Ala Leu Thr Leu Ile Val Leu Phe Trp ~5 1 Gly Ser Lys His Phe Trp Pro Glu Val Pro Lys Lys Ala Tyr Asp Met 10 20 15 Glu His Thr Thr <210> 1197 <211> 82 <212> PRT <213> Homo sapiens

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                                          -30
Phe Asp Leu Ser Ala Asp Ala Pro Val Phe Gln Gly Leu Ser Leu Val
                   -20
                                   -15
Ser His Ala Pro Gly Glu Ala Leu Ala Arg Ala Pro Arg Thr Ser Cys
               - 5
                                 1
Ser Gly Ser Gly Glu Arg Glu Ser Pro Glu Arg Lys Leu Leu Gln Gly
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Pro Met Asp Ile Ser Glu Lys Leu Phe Cys Ser Thr Cys Asp Gln Thr
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Phe Gln
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<211> 56
<212> PRT
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<400> 1198
Met Leu Leu His Tyr Leu Lys Leu Lys Gly Asp Gln Trp Lys Leu Ser
                  -30
                                      -25
Ser Val Ser Thr Leu Ile Leu Phe Ile Phe Ile Gly Ser Leu Gln Pro
              -15
                                 -10
Val Pro Thr Arg Phe Lys Arg Phe Ser Cys Leu Xaa His Leu Ser Ser
Arg Asp His Arg Gln Ala Leu Arg
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<210> 1199
<211> 184
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<400> 1199
Met Ala Glu Gly Asp Asn Arg Ser Thr Asn Leu Leu Ala Ala Glu Thr
           -150
                              -145
Ala Ser Leu Glu Glu Gln Leu Gln Gly Trp Gly Glu Val Met Leu Met
                          -130
                                             -125
Ala Asp Lys Val Leu Arg Trp Glu Arg Ala Trp Phe Pro Pro Ala Ile
                     -115
                                          -110
Met Gly Val Val Ser Leu Val Phe Leu Ile Ile Tyr Tyr Leu Asp Pro
                  -100
                                      - 95
Ser Val Leu Ser Gly Val Ser Cys Phe Val Met Phe Leu Cys Leu Ala
              -85
                     -80
Asp Tyr Leu Val Pro Ile Leu Ala Pro Arg Ile Phe Gly Ser Asn Lys
           -70
                              -65
Trp Thr Thr Glu Gln Gln Gln Arg Phe His Glu Ile Cys Ser Asn Leu
                           -50
Val Lys Thr Arg Arg Arg Ala Val Gly Trp Trp Lys Arg Leu Phe Thr
                       -35
                                          -30
Leu Lys Glu Glu Lys Pro Lys Met Tyr Phe Met Thr Met Ile Val Ser
                  -20
                               -15
Leu Ala Ala Val Ala Trp Val Gly Gln Gln Val His Asn Leu Leu
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Thr Tyr Leu Ile Val Thr Ser Leu Leu Leu Pro Gly Leu Asn Gln
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His Gly Ile Ile Leu Lys Tyr Ile
<210> 1200
<211> 101
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<222> -26..-1
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   -25 -20
                                          -15
Gly Leu Leu Ala Gly Pro Ala Ala Thr Ser Trp Ser Arg Leu Pro Ala
                   -5
Arg Gly Phe Arg Glu Val Val Glu Thr Gln Glu Gly Lys Thr Thr Ile
           10
                               15
Ile Glu Gly Arg Ile Thr Ala Thr Pro Lys Glu Ser Pro Asn Pro Pro
                           30
Asn Pro Ser Gly Gln Cys Pro Ile Cys Arg Trp Asn Leu Lys His Lys
                      45
Tyr Asn Tyr Asp Asp Val Leu Leu Ser Gln Phe Ile Arg Pro His
Gly Gly Met Leu Pro
<210> 1201
<211> 44
<212> PRT
<213> Homo sapiens
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<221> SIGNAL
<222> -23..-1
<400> 1201
Met Gly Ser Leu Leu Phe Ile Arg Gln Thr Leu Val Gly Phe Lys Gln
           -20
                              -15
Val Val Ala Trp Thr Phe Ala Ser Asp Ser His Cys Xaa Xaa Val Xaa
                          1
Met Val Xaa Xaa Ser Gln Leu Xaa Asn Pro Pro Leu
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<210> 1202
<211> 48
<212> PRT
<213> Homo sapiens
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<221> SIGNAL
<222> -24..-1
<400> 1202
Met Leu Ala Arg Ala Ala Glu Xaa Thr Gly Ala Leu Leu Leu Arg Gly
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                                  -15
Ser Leu Leu Ala Ser Xaa Arg Ala Xaa Xaa Pro Pro Leu Gly Leu
Xaa Arg Asn Thr Xaa Gly Thr Val Arg Ala Ala Gly Gly Leu Gly
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<400> 1206

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<221> SIGNAL
<222> -17..-1
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Met Asn Ala Ser Leu Leu Ser Phe Cys Leu Cys Ser Asp Phe Ile Ser
 -15 -10 -5
Gln Asp Ala Leu Leu Thr Val Ile Phe Pro Pro
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<211> 79
<212> PRT
<213> Homo sapiens
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<222> -60..-1
<400> 1204
Met Leu Asn Met Glu Pro Tyr Thr Val Ser Gly Met Ala Arg Gln Asp
                -55
Ser Ser Ser Glu Val Gly Glu Asn Gly Arg Ser Val Asp Gln Gly Gly
           -40
                              -35
Gly Gly Ser Pro Arg Lys Lys Val Ala Leu Thr Glu Asn Tyr Glu Leu
       -25 -20 -15
Val Gly Val Ile Val His Ser Gly Gln Ala His Ala Gly His Tyr Tyr
 -10 -5
Ser Phe Ile Lys Asp Arg Arg Gly Cys Gly Lys Gly Lys Trp Leu
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<210> 1205
<211> 23
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<213> Homo sapiens
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<222> -20..-1
<400> 1205
Met Xaa Xaa Ala His Phe Ser Leu His Leu Xaa Ser Ser Arg Xaa Pro
-20 -15 -10
Pro Ile Leu Ala Ser Pro Val
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<210> 1206
<211> 33
<212> PRT
<213> Homo sapiens
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<221> SIGNAL
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Met Ile Arg Pro Val Cys Glu Leu Ser Ile Phe Phe Thr Tyr Val Leu -10 -5 -15 Ala Ile Tyr Ile Ser Pro Ser Val Asn Cys Leu Phe Ile Ser Phe Pro 5 10 Ala <210> 1207 <211> 84 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -29..-1 <400> 1207 Met Arg Gly Cys Gln Leu Leu Gly Leu Arg Ser Ser Trp Pro Gly Asp -20 -25 Leu Leu Ser Ala Arg Leu Leu Ser Gln Glu Lys Arg Ala Ala Glu Thr -10 His Phe Gly Phe Glu Thr Val Ser Glu Glu Glu Lys Arg Gly Asp Leu 10 Thr Ser Val Val Ser Leu Glu Tyr Pro Glu Val Gln Leu Gln Gly Gln 25 30 Arg Val Tyr Ala Phe Leu Ser Pro Ile Cys Thr Tyr Gly Ser Glu Gly 45 Cys Ser Leu Lys 55 <210> 1208 <211> 55 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -35..-1 <400> 1208 Met Glu Asn Leu Pro Phe Pro Leu Lys Leu Ser Ala Ser Ser Leu -35 -30 -25 Asn Thr Pro Ser Ser Thr Pro Trp Val Leu Asp Ile Phe Leu Thr Leu -15 -10 Val Phe Ala Leu Gly Phe Phe Phe Leu Leu Pro Tyr Phe Ser Tyr 1 Leu Arg Cys Asp Asn Pro Pro <210> 1209 <211> 20 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -13..-1 Met Cys Val Cys Val Phe Ala Ile Phe Gly Val Arg Cys Cys Val Cys -10 Val Arg Cys Ile 5

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<222> -44..-1
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Met Ile Cys Ile Phe Tyr Ser Lys Ile Ser Ile Ser Val Gly Cys Gly
                        -35
          -40
Arg Thr Ala Ala Glu Gln Val Gly Cys Lys Gln Arg Ser Phe His Xaa
    -25
                           -20
Pro Cys Pro Leu Leu Phe Pro Gly Ala Cys Phe Pro Cys Pro
     -10 -5
<210> 1211
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<222> -16..-1
<400> 1211
Met Asn Leu Ile Cys Val Ser Leu Met Ala Ser Asp Gly Ala Ser Ser
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Pro Val Leu Gly Gly Ser Ser His Ser Ser Ser Xaa Xaa
             5
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<210> 1212
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<222> -47..-1
<400> 1212
Met Gly Ser Val Thr Gly Ala Val Leu Lys Thr Leu Leu Leu Ser
    -45 -40
                               -35
Thr Gln Asn Trp Asn Arg Val Glu Ala Gly Asn Ser Tyr Asp Cys Asp
 -30
                    -25
                          -20
Asp Pro Leu Val Ser Ala Leu Pro Gln Ala Ser Phe Ser Ser Ser
-15 -10
Glu Leu Ser Ser Ser His Ser Pro Gly Phe Ala
         5
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<210> 1213
<211> 47
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<222> -31..-1
<400> 1213
Met Met Ser Glu Xaa Ser Gln Asp Leu Val Val Lys Cys Ala Pro Pro
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Xaa Pro Phe Phe Leu Phe Leu Phe Ser Ser Cys Asp Val Pro Val
-15 -10
                             -5
Pro Leu His Leu Leu Gln Trp Leu Gln Ser Phe Leu Arg Pro Arg
          5
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<210> 1214
<211> 59
<212> PRT
<213> Homo sapiens
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<222> -27..-1
<400> 1214
Met Phe Arg Cys Val Arg Phe Leu Pro Ser Gly Gly Phe Val Val Leu
                       -20
                                          -15
    -25
Leu Thr Ser Gly Val Lys Pro Gln Thr Phe Ala Val Ser Val Thr Ala
                   -5
                           1
Leu Lys Gly Gly Met Pro Gly Val Val His Ser Ser Gly Gly Phe Val
                          15
             10
Val Leu Leu Thr Ser Gly Ala Xaa Cys Arg Pro
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<210> 1215
<211> 52
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<400> 1215
Met Arg Val Gly Arg Arg Glu Gly His Pro Leu Phe Pro Asn Val Pro
                       -20 -15
             -25
Arg Cys Leu Phe Leu Asn Ala Arg Leu Ala Gly Thr Leu Cys Gln Leu
              -10
                              -5
Lys Leu Leu Gln Phe Gly Arg Leu Gly Asn Thr Glu Ser His Leu His
                         10
    5
Gly Leu Ala Gly
    20
<210> 1216
<211> 33
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<400> 1216
Met Tyr Phe Asp Ile Gln Ile Val Ser Asp Val Val Ser Gly Ile Pro
                    -25
                                       -20
Phe Lys Leu Cys Pro Leu Thr Cys Pro His His Ser Leu Ser Thr
                                   -5
                  -10
-15
Val
<210> 1217
<211> 47
<212> PRT
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<220>
<221> SIGNAL
<222> -31..-1
<400> 1217
Met Leu Phe Ile Phe Ser Asp Ile Asp Trp Lys Met Asp Leu Cys Phe
 -30 -25
                         -20
Phe Ser Phe Ser Pro Phe Leu Pro Ser Leu Pro Leu Glu Ala Glu
-15
              -10
                                  - 5
Arg Met Arg Val Ser Asp Gln Leu Gln Tyr Thr Thr Gly Xaa Gly
                 10
<210> 1218
<211> 61
<212> PRT
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<221> SIGNAL
<222> -36..-1
<400> 1218
Met Glu Leu Glu Ala Met Ser Arg Tyr Thr Ser Pro Val Asn Pro Ala
             -30
Val Phe Pro His Leu Thr Val Val Leu Leu Ala Ile Gly Met Phe Phe
-20 -15 -10
Thr Ala Trp Phe Phe Val Tyr Glu Val Thr Ser Thr Lys Tyr Thr Arg
      1 5
Asp Ile Tyr Lys Glu Leu Leu Ile Ser Leu Val Ala Arg
<210> 1219
<211> 38
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<222> -17..-1
<400> 1219
Met Lys Gly Ala Leu Lys Leu Ile Ser Thr Asn Phe Ser Leu Cys Gln
     -15 -10 , -5
Ser Val Gln Cys Pro Ser Glu Glu Thr Ile Thr Asp Leu Val Ser Val
 1 .5
                           10
Pro Cys Gln Xaa Gly Leu
             20
<210> 1220
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Met Thr Ser Gln Pro Val Pro Asn Glu Thr Ile Ile Val Leu Pro Ser
                       -60
Asn Val Ile Asn Phe Ser Gln Ala Glu Lys Pro Glu Pro Thr Asn Gln
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557
Gly Gln Asp Ser Leu Lys Lys His Leu His Ala Glu Ile Lys Val Ile
                                           -25
     -35
                        -30
Gly Thr Ile Gln Ile Leu Cys Gly Met Met Val Leu Ser Leu Gly Ile
                             -10
           -15
Ile Leu Ala Ser Ala Ser Phe Ser Pro Asn Phe Thr Gln Val Thr Ser
                     5
-5 1
Thr Leu Leu Asn Ser Ala Tyr Pro Phe Ile Gly Pro Gly
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Met Val Asp Glu Cys Leu Thr Glu Pro Val Trp Gly Ser Lys Arg Gln
                                    -30
                -35
Gly Cys Ser Ser Gln Ala Glu Ala Ser Cys Asp Ile Val Ser Ala Ala
              -20
                              -15
Cys Lys Cys Gly Ser Ser Gln Ala Ala Ile Asp Cys Glu Thr Ser Ser
         - 5
Cys Ser Glu Asp Phe Pro Val
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         -10 -5
Gly Tyr Gly Ser Leu Met Ala Pro Ser Ser Pro Thr Pro Ser Gly
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Met Val Ala Lys Asp Tyr Pro Phe Tyr Leu Thr Val Lys Arg Ala Asn
                         -50
Cys Ser Leu Glu Leu Pro Pro Ala Ser Gly Pro Ala Lys Asp Ala Glu
                                     -30
                     -35
Glu Pro Ser Asn Lys Arg Val Lys Pro Leu Ser Arg Val Thr Ser Leu
                                    -15
                  -20
Ala Asn Leu Ile Pro Pro Val Lys Ala Thr Pro Leu Lys Arg Phe Ser
            ~5
                                 1
Gln Thr Leu Gln Arg Ser Ile Ser Phe Arg Ser Glu Ser Ala
                         15
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<213> Homo sapiens
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Val Leu Leu Glu Pro Phe Val His Gln Val Gly Gly His Ser Cys Val
                                      1
                     -5
Leu Arg Phe Asn Glu Thr Thr Leu Cys Lys Pro Leu Val Pro Arg Glu
                                15
       10
5
His Gln Phe Tyr Glu Thr Leu Pro Ala Glu Met Arg Lys Phe Thr Pro
                       30
           25
Gln Tyr Lys Gly Gln Ser Gln Arg Pro Leu Val Ser Trp Pro Ser Leu
                          45
       40
Pro His Phe Phe Pro Trp Ser Phe Pro Leu Trp Pro Gln Gly
                        60
<210> 1225
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Met Leu Gly Gly Ala Val Ile Ala Gly Arg Pro Leu Gly Arg Trp Glu
           -30 -25 -20
Ser Thr Ala Gln Xaa Ile Leu Ala Phe Leu Gln Ser Pro Arg Ala Ile
                           -10
        -15
Leu Pro Gly Asn Phe Phe Glu Lys Asn Ala Gln Ile Gln Gly Gly Pro
 1 5
Trp Gly Gly Ser Gly Lys Thr Cys Ala Pro Gly Arg Xaa Asp Pro
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Gly Trp Glu Cys Gly Ala Gly Gly Kaa Gly Glu Ala Ala Gly Ser
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Arg Xaa Arg Xaa Ser
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 <210> 1226
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 <222> -16..-1
 <400> 1226
 Met Ser Met Ala Cys Phe Phe His Leu Phe Val Ser Ser Leu Ile Ser
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 Phe Glu Gln Cys Phe Xaa Met Leu Arg Lys Leu Leu Lys Ile Ile
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 <210> 1227
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<222> -45..-1
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Met Gly Ser Arg Gly Asp Pro Leu Ile Cys Gly Leu Gln Arg Ser Val
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              -40
-45
Gly Glu Val Trp Phe Pro Gly Trp Gly His Thr Ile Thr His Cys Phe
             -25 -20
                                        -15
Pro Trp Leu Glu Val Gly Leu Phe Phe Trp Leu His Ala Ala Pro Gly
              -5
                                  1
          -10
Arg Ala Ile Ala Leu Pro His Phe Ser Ser Phe Ser Val Gly Gln Xaa
                              15
             10
Val His Leu Val Ser Pro Leu Xaa Xaa Leu Asp Ile Ser Val Glu
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<400> 1228
Met His Leu Leu Gln Glu Glu Leu Leu Leu Leu Pro Arg Gly Leu
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Cys Gln Val Cys Pro Arg Leu Cys Leu Gln Arg Xaa Val Gly Glu Leu
                                    10
                 5
        1
Gln Xaa Xaa Xaa Pro Asp Val Gly Thr Ala Leu Leu Pro Asp Val Asn
             20
Arg Thr Ser Cys Thr Thr Trp
<210> 1229
<211> 39
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<221> SIGNAL
<222> -28..-1
<400> 1229
Met Cys Leu Ser Cys Ile Gln Gly Ser Phe Phe Val Glu Ile Leu Gln
                         -20
                                  -15
          -25
Leu Val Thr Arg Leu Leu Ser Pro Ser Gln Ser Thr Gln Thr His
 -10
Thr His Thr His Thr His Thr
<210> 1230
<211> 39
<212> PRT
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<222> -32..-1 <400> 1230 Met Thr Ile Leu Arg Glu Met Xaa Xaa Ser Leu Tyr Val Leu Glu Ala -25 -20 -30 Lys Asp Thr Ala Ile Leu Leu Leu Val Xaa Val Ser Asp Lys Asn Glu -15 Gln Gln Leu Gly Arg Gly Val <210> 1231 <211> 51 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -29..-1 <400> 1231 Met Arg Leu Ser Ser Ser Cys Gly Leu Pro Val Lys Thr Leu Pro Phe -20 -25 Ile Cys Cys Asn Leu Tyr Phe Leu Leu Phe Cys Arg Ser Ser Phe Leu 1 -5 -10 Tyr Phe Gly Tyr Asp Pro Ile Asn Thr Tyr Met Tyr Tyr Asn Val Phe 15 10 5 Ser His Ser 20 <210> 1232 <211> 89 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -68..-1 <400> 1232 Met Leu Leu Thr Arg Pro Ala Val Ser Ala Gly Gly Ala Xaa Arg Phe -60 -65 Ser Pro Gly Ser Arg Gly Arg Gly Ser Asp Leu Glu Arg Gly Leu Cys -40 -45 -50 Pro Ala His Pro Gly Ala Pro Pro Leu Pro Arg Pro Pro Asp Arg Leu -25 -30 Pro His Ser Phe Ser Pro Thr Gly Cys Leu Leu Xaa Pro Leu Leu Val -15 -10 Ser Cys Leu Gly Ser Leu Leu Pro Val Thr Gln Thr Leu Gly Ser Phe 10 1 Ser Ala Gly Pro Cys Phe Arg Thr Leu 15 <210> 1233 <211> 46 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -25..-1 <400> 1233 Met His Ser Leu Cys Pro Leu Ser Gln Phe Leu Pro Ile Leu Xaa Ser

-20 -25 Leu Ser Ser Ser Val Pro Ser Arg Ala Gly Ser Ala Phe Pro Ser Ala -5 1 Leu Gly Pro Leu Tyr Gln Pro Leu Leu Gly Pro Pro Ala Trp 15 <210> 1234 <211> 59 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -44..-1 <400> 1234 Met Arg Thr Gln Val Tyr Glu Gly Leu Cys Lys Asn Tyr Phe Ser Leu -35 -40 Ala Val Leu Gln Arg Asp Arg Ile Lys Leu Leu Phe Phe Asp Ile Leu -20 -15 -25 Val Phe Leu Ser Val Xaa Leu Leu Phe Leu Leu Phe Leu Val Asp Ile -5 Met Ala Asn Xaa Thr Thr Ser Leu Gly Arg Pro 5 10 <210> 1235 <211> 109 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -45..-1 <400> 1235 Met Gly Gln Phe Thr Ala Ala Met Val Gly Arg Ile Ser Cys Leu Gly -35 -40 Val Trp Lys Leu Pro Arg Val Glu Ser Cys Ser Gln Pro Ala Arg Pro -20 -15 -25 Leu Leu Ser Leu Ala Gln Thr Thr Thr Lys Thr Thr Ala Thr Thr Thr -5 -10 Thr Thr Thr Lys His Ala Thr Cys Ala Leu Ala Tyr Thr Asn Thr Pro 10 15 Thr Glu Pro Xaa Gln Ala Asp Lys Ala Ser Arg Arg Ala Ser Gly Xaa 30 25 Leu Xaa Xaa Ala Ala Arg His Ile Pro Trp His Gly Ala Thr Ala Ala 45 40 Gln Leu Pro Ala Pro Pro Pro Ser Val Ile Ser Ala Leu 60 <210> 1236 <211> 28 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -18..-1 Met Leu Ile Phe Ile Ile Ala Ile Leu Phe Pro Asn Ser Gly Ser Cys -10 -15 Phe Ala Phe Ser Cys His Val Ser Phe Phe Phe

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Asp Cys Lys Phe Leu Gly Ala Ser Gln Ser Cys Phe Leu Leu Ser Arg
                                              15
                            10
       5
Gln Asn Cys Val Ser Thr Gly Xaa Pro Ser Ser Lys Ser Asp Ile Asn
              25
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Ser Arg Ser Gly Ser Cys Ser Leu Ala Arg
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<222> -27..-1
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                                           -15
                          -20
Pro Leu Xaa Leu Val Phe Ile Ser Leu Leu Pro Ala Pro Phe Phe Pro
                                     1 5
                    -5
Thr Leu Ser Phe Pro Cys Cys Cys Val Ser Trp Leu Phe Ser Leu Ser
                                15
            10
Val Xaa Val Ser Leu Arg Leu Ser Leu Xaa Val Ser Cys Leu Ser Leu
                      30
         25
Trp Cys Leu Leu Val Leu Phe Leu Ser Pro Thr Leu Tyr Val Ser Asp
                                           50
                      45
 Ser Phe Cys Ser Phe Cys Val Leu Pro Ile Ala Leu Cys Pro Xaa Ala
                     60
 Arg Ser
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 Met Ala His Pro Cys Leu Ala Pro Ala Glu Pro Ser Thr Leu Ser Gln
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               -50
 Thr Xaa His Pro Ile Gln Arg Thr Leu Thr Thr Phe Pro Gln Ala Trp
                              -30
           -35
 Val Leu Thr Ser Ser Phe Ser Ile Gln Pro Gly Leu Ala Phe Leu Ala
        -20 -15
                                     -10
 Ile Leu Thr Val Leu Ala Lys Pro Gly Ser Ser Xaa Trp Ser Pro Gly
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563
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Gln Phe Thr Pro His Ser Leu Leu
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Met His Phe Pro Ile Gln Ala Thr Phe Xaa Tyr Ser Pro Thr Asp Ser
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Leu Cys His Leu Tyr Xaa Ser Leu Phe Ser Ser Phe Leu Cys Ser Thr
-15 -10
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Pro Ala Arg
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-35 -30 -25
Val Arg Gln Pro Ala His Glu Ser Cys Phe Val Pro Ser Leu Val Thr
               -15
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Gly Ala Leu Gln Gln Ser Gln Thr Gln His Pro Pro Trp Val Cys Pro
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Gln Val Gln Gly Ser Tyr Pro Ser Trp Lys Asn Arg Gly
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                       -25
Arg Glu Tyr Arg Val Leu Xaa Leu Cys Asn Ser Arg Val Ser Phe Thr
-15 -10
                           -5
Arg Xaa His Val Lys Arg Pro Pro Xaa Arg Leu Cys Val Ser Ser Lys
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1 5
Gly Cys Leu Phe His Leu Gly Ala Gly Arg
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                                               -5
Leu Phe Gln Lys Gln Xaa Gly Leu Leu Lys Asn Tyr Xaa Ser Pro Gln
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Arg Gln Val Leu Phe Cys Asn Arg
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Met Ser Tyr Phe Arg Cys Ile Phe Leu Ala Val Leu Ser Lys Ile Ser
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Trp Ala Val Asn Met Cys Ser Leu Ile Ser Gly Ser Ser
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Met Leu Cys Ile Met Phe Gly Ile Glu Thr Asn Glu Ile Thr Lys Met
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Thr Met Ser Phe Leu Leu Phe Leu Ser Ile Ser Leu Ile Thr Leu Tyr
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   -15
Tyr Ser Ser Glu Ala Cys Gly
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             -35
Phe Ile Leu Phe Xaa Leu Ile Leu Ser His Tyr Val Phe Xaa Leu Leu
                           -15
          -20
Ala Pro Phe Leu Thr Arg Ser Ser Pro Ser Trp Asn Ser Tyr Gly Thr
                            5
                      1
 -5
Leu Ala Pro Glu Thr Thr Asn Ser Ser Leu Lys Phe Ser Asn Ser Asn
                      20
                 15
Asn Gly Ile Ser Asp Leu Ala Xaa Leu Tyr Phe Ser His Val Xaa Lys
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Ser Val Val Ser Ser Asp Leu Thr Gln Asp Pro Ala Val Ser Val Ala
Leu Gly Gln Arg Val Arg Ile Thr Cys Gln Gly Asp Asn Leu Glu Glu
               20
Tyr Phe Ala Ser Trp Tyr Arg Gln Arg Pro Gly Gln Ala Pro Val Leu
                   35
                                  40
Val Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro Xaa Arg Xaa
                                  55
                 50
Ser Gly Ser Lys Ser Gly Asn Thr Ala Leu Leu Thr Ile Xaa Gly Ala
              65
                                70
Gln Ala Glu Asp Xaa Ala Asp Tyr Tyr Cys Ser Xaa Arg Asp His Thr
                            85
Asp Asn Arg Trp Val Phe Gly Gly Gly Thr Arg Leu Thr
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Met Glu Ala Glu Phe Tyr Met Xaa Ile Leu Thr Cys Leu Ile Phe Arg
     -15 -10 -5
Asn Ser Glu Gly Phe Gln Ile Xaa His Val Gln Lys Gln Gln Cys Leu
              1
Phe Lys Asn Glu Lys Val Val Gly Ser Cys Asn Arg Thr Ile Gln
                       20
                                    25
Asn Gln Gln Trp Met Trp Thr Glu Asp Glu Lys Leu Leu His Val Lys
Ser Ala Leu Cys Leu Ala
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<210> 1251
<211> 19
<212> PRT
<213> Homo sapiens
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Met Cys Val Cys Ala Cys Ala Leu Cys Val Trp Leu Cys Val Lys Ser
 -15
Cys Ser Ile
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<212> PRT
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Met Ile Ser Asp Val Gln His Leu Phe Ile Tyr Leu Leu Ala Phe Cys
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567
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Met Pro Ser Leu Glu Lys Cys Leu Tyr Gly Ser Leu Ala His Phe Phe
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Phe Phe
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Asp Phe Arg Met Gln Pro Cys Pro Pro Thr Pro Lys
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Met Trp Tyr Val Glu Met Trp Val Ser Phe Phe Leu Leu Phe Tyr Val
       -20 -15 -10
Leu Leu Phe Arg Asn Leu Tyr Thr His Thr His His Thr Gly
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<211> 54
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                                   -20
Pro Val Leu Val Val Ser Phe Val Val Gly Gly Leu Gly Cys Asn Xaa
           -10
                               -5
Ala Pro Ile Glu Pro Leu Leu Gln Val Leu Arg His Asp Gln Gln Gly
                       10
                                          15
His Ala Leu Gln Leu Xaa
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<211> 42

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Met Lys Phe Thr His Phe Lys Cys Thr Ile Arg Leu Leu Leu Tyr
        -30
                             -25
Leu Gln Asn Pro Val Thr Ile Thr Ile Leu Phe Leu Ile Val Ser Met
  ~15
                         -10
                                       -5
Ala Leu Lys Ile Asn His Ile Pro Lys Gly
  1
<210> 1261
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Met Ser Cys Met Ser Leu Phe Pro Cys Cys Pro Ala Gln Ser Lys Asn
        -10 -5
Tyr Met Leu Leu Phe Ile Ile Leu Leu Pro Thr Gln Phe Leu Tyr
                         10
Ser Lys Leu Val Thr Ile Cys Cys Cys Phe
<210> 1262
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<222> -14..-1
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           -10
                                 -5
Arg Asn Ala Ile Pro Leu Pro Ala Pro Gly
    5
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Met Gly Arg Gly Pro Gly Pro Leu Gln Glu Arg Ser Leu Phe Glu Xaa
               -45
        -50
Lys Arg Gly Ala Pro Pro Ser Ser Asn Ile Glu Asp Phe His Gly Leu
      -35
                         -30
                                            -25
Leu Pro Lys Val Ile Pro Ile Cys Ala Leu Tyr Val Ile Cys Gln Phe
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-15

-20

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Ile Leu Ile Arg Ser Gly Val Asn Ile Ser Met Glu Gln Val Thr Val
-5 1
                         5
Val Asp Ala Ser Leu
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Met Leu Tyr Cys Val Val Val His Ser Val Cys Cys Ala Val Tyr
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                            - 5
Tyr Phe Val Ile Ile His Thr Ile Glu His Ile Thr Tyr Leu Cys Ile
 5
               10
                                       15
His Ser Thr Ile Leu Leu Cys Val
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Met Cys Trp Leu Arg Xaa Trp Gly Gln Ile Leu Leu Pro Val Phe Xaa
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                                 -15
Ser Leu Phe Leu Ile Gln Leu Leu Ile Ser Phe Ser Glu Asn Gly Phe
-10 -5
                                   1
Ile His Ser Pro Met
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Met Cys Gly Leu Xaa Ile Leu Cys Gly Pro Trp Leu His Ala Ala Pro
       -10
                      -5
Pro Ser Pro Pro Arg
   5
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Leu Leu Gln Ile His Ser Ile Tyr Ser Gln Leu Ile Ile Leu Asp Leu
                             -15
           -20
                                     -10
Leu Val Pro Val Ile Gly Leu Ile Thr Glu Leu Pro Leu His Ile Arg
                       1
Glu Thr Leu Leu Phe Thr Ser Ser Leu Ile Leu Thr Leu Asn Thr Val
         15
                                  20
Phe Val Leu Ala Val Lys Leu Lys Trp Phe Tyr Tyr Ser Thr Arg Tyr
             30
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                                 -15
Leu Leu Thr Phe Tyr Val Ile Ser Gln Val Phe Glu Ile Lys Met Asp
        - 5
                      1
Ala Ser Leu Gly Asn Leu Phe Ala Arg Ser Ala Leu Asp Thr Ala Ala
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Arg Ser Thr Lys Pro Pro
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                 -10 -5
Pro Ala Ala Cys Gln Ala Leu Pro Leu Leu Pro Arg Glu Leu Phe Pro
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Leu Leu Phe Lys Val Ala Phe Met Xaa Lys Lys Thr Val Val Leu Arg
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Xaa Leu Val His Thr Arg
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WO 99/53051 573 <400> 1273 Met Thr Val Val Ile Ser Cys Leu Val Gly Glu Cys Gly Ser Trp Lys <210> 1274 <211> 72 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -47..-1 <400> 1274 Met Cys Thr Leu Thr Asp Thr His Thr His Val Gln Val His Lys Ser -40 -35

Lys Pro Cys Gln Leu Leu Ser Pro Pro Pro Pro Xaa His Gly Pro Leu -25 -20 Leu Leu Pro Ile Phe Gly Leu Leu Val Pro Ser Gln Ile Phe Ser Ser -10 -5 Leu Leu Asn Ser Leu His Leu Gly Leu Pro Ser Phe Pro Lys Met Pro 5 Leu Met Ile Phe Leu Pro Arg Trp

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<220> <221> SIGNAL <222> -63..-1

<400> 1275

Met Thr Leu Ile Leu Gly Glu Ser Ser Ser Gln Pro Gln Ile Ser Ile -55 -60 -50 Phe Leu Trp Thr Lys Val Lys Asp Leu Phe Ser Leu Met Ile Thr Trp -40 -35 Thr Val Gln Met Lys Leu Thr Ser Met Trp Met Asn Leu Ile Pro Pro -25 Met Lys Gln Ile Leu Xaa Ser Thr Leu Ala Met Lys Ile His Ser Gln -15 -10 -5 Gln Arg Phe Trp Pro Arg Val Arg Val Tyr Ser Arg Ile Tyr 10 15

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   Asp Pro Glu Leu Val Gly Pro Leu Ser Val Leu Tyr Ala Ala Phe Ile
                        -25
    -30
                                  -20
   Ala Lys Leu Leu Glu Leu Val Ala Thr Leu Pro Asp Asp Val Gln Pro
                     -10 -5
   Gly Pro Asp Phe Tyr Gly Xaa Xaa Trp Lys Leu Tyr Leu Ser Leu Pro
   1 5
                        10
   Ser Trp Glu Xaa Phe Val Cys His Phe Leu Met Glu Thr Val Leu Val
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  Val Lys Xaa Arg Val Tyr Xaa Val
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   Ile Cys Cys Gly Xaa Trp Leu Thr Gly Leu Val Arg His Glu Arg Ile
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  Glu Ala Pro Trp Ala Arg Gly
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                -25 -20
  Ile Leu Leu Ile Leu Gln Leu Leu Lys Xaa Ser Leu Lys Lys Cys Arg
             -10
                     -5
  His Gly
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Ala Pro Thr Arg Cys Pro Arg Pro Ser
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                            -10
Leu Ser Ile Pro Asp Cys Leu Pro Ala Phe Leu Trp Pro Leu Gly Ile
                                         10
Pro Trp Pro Asp Gly Glu Gly Leu Arg Pro Ser Arg Leu Leu Arg Thr
                 20
                                  25
Arg Glu Asn Ile Thr Pro Leu Ser Leu Phe Ala Met Leu Ser Gly Arg
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Glu Gly Ala Pro Leu Leu Val Pro Leu
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Pro Lys Gln Gly
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Leu Leu Thr Cys Leu Thr Phe Pro Ile Tyr Lys Leu Leu Trp Val Arg
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                         5
Gly Gly Thr Arg Xaa Thr Leu Xaa Ala Leu His Ser Ala Arg Thr
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Ala Ile Leu Ala Glu Leu Thr Lys Arg Lys Glu Asn Tyr Leu Cys Arg
                                    -30
                               -35
Thr Ser Leu Gln Gln Ile Ile Leu Glu Leu Gly Ile Asp Thr Ile Met
                            -20
Trp Val Xaa Cys Xaa Phe Cys Phe Val Leu Phe Cys Phe Glu Thr Glu
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Ser Arg Pro Val
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Lys Trp Asp Gln Pro Ala Pro Ala Pro Leu Phe Leu Pro Pro Ala
             -15
                             -10
Ala Pro Gly Gly Glu Val Thr Ser Ser Gly Gly Ser Pro Gly Xaa Thr
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WO 99/53051
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 Thr Ala Ala Pro Ser Gly Ala Leu Asp Ala Ala Ala Ala Val Ala Ala
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 Lys Ile Asn Ala Met Leu Met Ala Lys Gly Lys Leu Lys Pro Thr Gln
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           35
                                       40
 Xaa Ala Ser Glu Lys Leu Gln Ala Pro Gly Lys Gly Leu Thr Ser Asn
             50
                                   55
 Lys Ser Lys Asp Asp Leu Val Val Ala Glu Val Glu Ile Asn Asp Val
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                       -15
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Gly Ser Cys Trp Gly Gly Val Arg Cys Leu Val Arg Gly Gly Pro Asn
-5
                  1
                                 5
Ile Gly Pro Ala Ala Gln Leu Leu Gly Gly Ile Pro Leu Cys Trp Pro
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Pro Ala Val Thr Ala Gly Glu Val Lys Leu
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            -10
Xaa Ala Gln
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Leu Leu Ser Thr His Thr Trp Thr Asp Thr Ala Leu Ala Phe Ser Thr
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-5

His Thr His 5

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 Ile Cys Thr
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 Phe Ile Ser Pro Ser Ile Gln
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Phe Val His Gly Leu Asn Ile Thr Gln Leu Val Leu Ser Gln Leu Asp
    -35
                          -30
                                             -25
Tyr Phe Phe His Ser Asn Leu Thr Asn Leu Val Leu Tyr Phe Leu Val
  -20 -15
                                         -10
His Leu Leu Phe Ser Leu Ser Leu Phe Met Pro Leu Thr
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-70

581 Xaa Lys Val Pro Leu Ile Gly Phe Leu Lys Arg Ile Xaa Xaa Tyr Xaa -60 ~55 Leu Thr Val Leu Lys Pro Xaa Ser Leu Xaa Ser Xaa Ser Ala Gly Leu -45 Val Pro Ser Glu Asp Ser Lys Lys Glu Ser Val Ser Cys Leu Ser Pro -25 -20 Arg Phe Trp Trp Leu Gly Ser Leu Xaa Val Thr Trp Leu Ile His -10 - 5 Ala Ser Leu Gln Ser Leu Ser Pro Phe Ser His Ala Ile Phe Ser Cys 10 Val Ser Val Phe Ser Phe Ala Tyr Lys Asp Thr Ser His Ile Glu Leu 25 30 Gly Pro Ala Leu Ile Thr Ser Ser Gln Leu Pro Leu Gln Gly Thr Asn 40 45 Phe Gln Ile Met Ser His Ser His Val Ala <210> 1301 <211> 35 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -33..-1 <400> 1301 Met Asn Glu Lys Lys Leu Leu Gly Thr Glu Gln Lys Gln Lys Lys -25 -30 Arg Met Gly Asn Leu Lys Leu Leu Phe Leu Ile Leu Ile Ala -15 -10 Gly Tyr Arg 1 <210> 1302 <211> 30 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -27..-1 <400> 1302 Met Gly Leu Gln Ser Leu Thr Leu Pro Val Ser Cys Ser Pro Ser Ala -20 Leu Met Leu Pro Leu Gly Cys Ala Val Arg Thr Arg Met Leu -10 -5 <210> 1303 <211> 38 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -31..-1 <400> 1303 Met Asp Ser Asn Lys Lys Leu Val Leu Ser Ile Thr Gly Asn Thr Val -30 -25 Trp Ile Leu Thr Thr Leu Glu Ser Leu Ala Gly Ser Val Xaa Ser Glu -10 - 5

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                                  1
 Arg Tyr Thr Arg Ala Met Glu Val Cys Cys Thr His Gln Pro Ser Ser
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 Thr Leu Gly Ile Ser Pro Asn Ala Leu Leu Pro Leu
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Ile His Pro Xaa Xaa Cys Ala Cys Ile Cys Pro Ser Ile Gln
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Xaa Thr Arg Thr Thr Gly Lys Xaa Val Cys Val Cys Val Cys
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-20
Val Cys Val Cys Val Cys
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-15 -10 Ala Gly Leu Glu Gly Arg Val His Leu Ala Asp Thr Ser Ser Gly Arg

5 Lys Thr Trp Pro Gly Cys Gly His Gln Trp Lys Trp Lys Ala Leu Leu 15

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Arg Thr Val Cys Ser Ser Leu Arg Ser Xaa Arg Pro Cys Trp Cys Asp -15 -5

Gly Leu Arg Leu Arg

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<222> -51..-1

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Pro Pro Gly Asn Ser Ser Ile Pro Ser Asp Leu Ala Ser Ser Ser Gly -30 -25

Ser Thr Leu Tyr Arg Cys Ser Thr Cys Leu Leu Arg Ala Leu Ser Ser -15 -10

Glu Leu Cys Ala Pro Arg Gly Cys His Ser Pro His His Val Ser Arg 1 10

Ile Ser Trp Thr Leu Ser Val Ser Ser His Gly Pro Val Cys Gly Cys 20 Trp Ala Phe Arg Phe His Asn Pro His Gly Leu Leu Ser Ser Arg Ser

586 30 35 45 His Leu Ser Xaa Trp Leu His Ser Ala Gly 50 <210> 1317 <211> 59 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -22..-1 <400> 1317 Met Val Val Ser Ala Phe Ile Tyr Leu Phe Phe Glu Thr Gly Ser -20 -15 -10 Pro Ser Val Ala Gln Ser Gly Val Gln Trp Cys Asp Leu Gly Leu Leu -5 5 Gln Pro Pro Pro Gly Phe Lys Arg Phe Ser Cys Leu Ser Leu Leu 15 20 Gly Xaa Xaa Asp Cys Arg Arg Ala Pro Pro Gly 3.0 <210> 1318 <211> 103 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -24..-1 <400> 1318 Met Phe Val Ser Xaa Thr Xaa Phe Phe Phe Xaa Leu Xaa Phe Leu Gly -20 -15 Met Phe Leu Ser Gly Met Val Ala Gln Ile Asp Ala Asn Trp Asn Phe Leu Asp Phe Ala Tyr His Phe Thr Val Phe Val Phe Tyr Phe Gly Ala 15 20 Phe Leu Leu Glu Ala Ala Ala Thr Ser Leu His Asp Leu His Cys Asn 30 35 Thr Thr Ile Thr Xaa Gln Pro Leu Leu Ser Asp Asn Gln Tyr Asn Ile 45 50 Asn Val Ala Ala Ser Ile Phe Ala Phe Met Thr Thr Ala Cys Tyr Gly 65 Cys Ser Leu Gly Leu Ala Leu 75 <210> 1319 <211> 41 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -26..-1 <400> 1319 Met Ser Ser Glu Ile Phe Xaa Xaa Xaa Xaa Ile Ala Tyr Ala Xaa Tyr -20 -15 Leu Leu Val Gly Leu Phe Pro Leu Lys Cys His Xaa Ser Xaa Phe Ser -5

Lys Xaa Gln Ile Ser Ser Phe Val Glu

10 15

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-10
-5

Cys Ser His Ser Ile Leu Arg Pro Ser Gly Pro Gly Ala Ala Ser Leu
1 5 10

Trp Ser Ala Ser Arg Arg Phe Asn Ser Gln Ser Thr Ser Tyr Leu Pro 15 20 25 30 Gly Tyr Val Xaa Lys Thr Ser Leu Ser Ser Pro Pro Trp Pro Arg

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<222> -18..-1

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Leu Xaa Xaa Ser Asn Pro Ala Ala 1 5

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<222> -16..-1

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Phe Ser Asn Arg Ile Lys Ser Xaa Leu Arg Pro Pro Ala Gly
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<222> -69..-1

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Met Ser Val Gly Leu Cys Phe Leu Ile Trp Gln Met Gly Ile Met Leu
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588 Leu Pro Arg Glu Cys Trp Lys Val Lys Asp Ser Lys Lys Tyr Lys Ser -45 -40 Cys Arg Glu Ser Val Leu Pro Ala Gln Ala Cys Thr Gly Glu Ser Pro -35 -30 Val Leu Ser Gly Val Arg Val Leu Gly Ile Arg Leu Ser Cys Val Leu -15 -10 Ser His Leu Gln Ala Trp Asp Ser Trp Asp Asn Gln Lys Val Cys Tyr -5 1 5 Leu Gly Ala Pro Cys Phe Gly Lys Arg Leu Ser Pro Thr Trp Leu 15 20 Thr Phe Trp Val Gly <210> 1324 <211> 43 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -14..-1 <400> 1324 Met Phe Ala Phe Leu Ala Gly Cys Ser Gly Ser Cys Leu Trp Ser Arg -10 -5 His Phe Gly Arg Leu Arg Arg Ala Ala Pro Leu Ser Pro Glu Phe Glu 10 Thr Gly Leu Gly Asn Met Val Glu Pro Gln Trp <210> 1325 <211> 42 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -17..-1 <400> 1325 Met Pro Thr Tyr Phe Leu Phe Val Pro His Leu Ile Ser Cys Asn Trp -15 -10 Cys Glu Pro Arg Gly Asn Asn Pro Gln Ile Pro Leu Leu Ala Ile His 1 5 Thr Arg Lys Lys Asn Gln His Phe Ile Thr 20 <210> 1326 <211> 59 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -27..-1 <400> 1326 Met Leu Trp Thr Ser Phe Gln Asn Pro Leu Gln Val Val Leu Leu Thr -25 -20 -15 Ser Val Ser Leu Xaa Xaa Xaa Xaa Xaa Gly Ser Val Arg Ile Xaa -10 -5 1 Leu Ser His Trp Ser Ser Ser Ala Phe Phe Phe Leu Ile Xaa Xaa Xaa 10

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 Gly Lys Gly Ser Ala Leu Lys Asp Pro Val
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                               -15
Leu Trp Ile Val Cys Cys Leu His Leu Asp Ser Leu Ile Ser Xaa Lys
           - 5
                                1
Tyr Pro Leu His Ala Ile Arg Arg Tyr Leu Ser Thr Leu Arg Asn Gln
                    15
                                           20
Arg Ala Glu Glu Gln Val Ala Arg Phe Gln Lys Ile Pro Asn Gly Glu
                   30
                                       35
Asn Glu Thr Met Ile Pro Val Leu Thr Ser Lys Lys Ala Ser Glu Leu
                                   50
Pro Val Ser Glu Val Ala Ser Ile Leu Gln Ala Asp Leu Gln Asn Gly
        60
Leu Lys Gln Cys Glu
        75
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<213> Homo sapiens
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<222> -14..-1
<400> 1336
Met His Ile Cys Leu Phe Phe Ser Phe Ser Xaa Xaa Phe Xaa Leu Phe
                                  - 5
Phe Phe Phe Phe
      5
<210> 1337
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 <222> -19..-1
 <400> 1337
 Met Trp Leu Pro Cys Gln Ile Leu Ala Arg Leu Cys Arg Met Gln Thr
               -15 -10 -5
 Cys Trp Cys Leu Ser Phe Pro Thr Ser Ser Phe Thr Glu Ser Val Met
           1
                5
 Arg Ser Leu Gly Glu Cys Pro Arg Lys Arg Trp Gly Gly
                       20
 <210> 1338
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 <213> Homo sapiens
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 <222> -84..-1
 <400> 1338
 Met Xaa Lys Leu Xaa Ser Asn Pro Ser Glu Lys Gly Thr Lys Pro Pro
            -80 -75
 Ser Val Glu Asp Gly Phe Gln Thr Val Pro Leu Ile Thr Pro Leu Glu
           -65
                            -60
                                               -55
 Val Asn His Leu Gln Leu Pro Ala Pro Glu Lys Val Ile Val Lys Thr
  -50
                          -45
Arg Thr Glu Tyr Gln Pro Glu Gln Lys Asn Lys Gly Lys Phe Arg Val
                    -30
                                       -25
Pro Lys Ile Ala Glu Phe Thr Val Thr Ile Leu Val Ser Leu Ala Leu
                -15
                                    -10 -5
Ala Phe Leu Ala Cys Ile Val Phe Leu Val Val Tyr Lys Ala Phe Thr
              1
                       5
Tyr Asp His Ser Cys Pro Glu Asp Ser Ser Xaa Ser Thr Gly
                         20
<210> 1339
<211> 51
<212> PRT
<213> Homo sapiens
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<222> -21..-1
<400> 1339
Met Phe Xaa Ala Ala Ala Gly Val Glu Val Leu Ser Leu Leu Phe Xaa
                     -15
                                -10
Cys Ile Tyr Trp Gly Gln Tyr Ala Thr Asp Gly Ile Gly Asn Glu Ser
                  1
                              5
Val Lys Ile Leu Ala Lys Leu Leu Phe Ser Ser Phe Leu Ile Phe
Leu Leu Met
      30
<210> 1340
<211> 35
<212> PRT
<213> Homo sapiens
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593
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  <222> -26..-1
  <400> 1340
 Met Leu Thr Gly Arg Phe Leu Gly Gly Ser Gln Gly Phe Phe Leu Ser
                        -20
                                    -15
 Phe Leu Ser Phe Phe Phe Phe Phe Phe Leu Phe Leu Xaa Phe Phe
 -10
                   -5
                                       1
 Phe Phe Phe
 <210> 1341
 <211> 41
 <212> PRT
 <213> Homo sapiens
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 <221> SIGNAL
 <222> -28..-1
 <400> 1341
 Met Phe Ile Xaa Xaa Xaa Met Lys Gln Xaa Phe His Ile Ile Asp Phe
           -25
                               -20
                                                  -15
 Val Phe Met Ser Lys Leu Leu Phe Ser Phe Ser Phe Leu Xaa Lys
     -10
                           - 5
 Ala Arg Met Xaa Thr Ala Ala Pro Gly
 <210> 1342
 <211> 37
 <212> PRT
 <213> Homo sapiens
<220>
<221> SIGNAL
<222> -18..-1
<400> 1342
Met Val Thr Pro Val His Ile Leu Thr Ala Val Leu Pro Leu Val Ser
         -15 -10
                                       -5
His Gln Gln Asn His Leu Gly Gly Arg Phe Ala Ser Leu Gly Ser Ser
       1
Gly Ile Arg His Gly
15
<210> 1343
<211> 19
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -15..-1
<400> 1343
Met Leu Ile Leu His Leu Ala Thr Leu Leu Asn Leu Phe Ile Ser Ser
                  -10
Asn Ser Phe
<210> 1344
<211> 27
<212> PRT
<213> Homo sapiens
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594
  <220>
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 <400> 1344
 Met Pro Leu Ala Ser Phe Gly Pro Phe Arg Ser Ser Cys Phe Ala Ala
 -15 -10
                                     -5
 Arg Ser Ile Ile Trp Lys Ser Gly Arg Gln Gly
            5
 <210> 1345
 <211> 36
 <212> PRT
 <213> Homo sapiens
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 <221> SIGNAL
 <222> -31..-1
 <400> 1345
 Met Glu Thr Trp Asn Gly Thr Ser Ile Ile Val Ala His Leu Xaa Ser
                     -25
                             -20
 Phe Ser Phe Leu Ser Phe Leu Ser Phe Arg Ser Pro Leu Cys His
 -15 .
                  -10
                                    -5
 His Pro Leu Gly
          5
 <210> 1346
 <211> 26
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<221> SIGNAL
<222> -14..-1
<400> 1346
Met Gln Phe Leu Ser Leu Ile Phe Ala Ser Cys Ser Ser Thr Thr Pro
       -10
                       - 5
Leu Pro Leu Xaa Gln Cys Cys Thr Leu Pro
<210> 1347
<211> 84
<212> PRT
<213> Homo sapiens
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<221> SIGNAL
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<400> 1347
Met Val Thr Ser Lys Ser Arg Gly Pro Xaa Val Gln Thr Leu Gly His
           -50
                              -45
Ala Gly Asn Leu Arg Ser Leu Arg Glu Trp Pro Asp Leu Cys Cys Leu
       -35
                          -30
                                            -25
Arg Leu Phe Val Pro Asp His Thr Val Leu Ala Leu Val Cys His Ser
                     -15
                                        -10
Ala Ser Ile Ser Val Phe Pro Ser Gln Val Thr Cys Arg Leu Pro Arg
                1
                             5
Thr Gly Ser His Pro Ile Cys Val Ile Ser Gln Gly Ala Phe His Asp
       15
                            20
Pro His Pro Asn
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30

<210> 1348

<211> 53

<212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

<222> -27..-1

<400> 1348

Met Pro Arg Ser Ile Asp Xaa Lys Ala Leu Ile Trp Thr Val Arg Leu -25 -20

Val Val Leu Phe Ala Ser Pro Xaa Val Arg Pro Ala Ser Ser Met Ser -10 -5 1

Ser Arg Leu Leu Pro Xaa Leu His Tyr Ser Asp Trp Thr Cys Trp 10 15

Leu Pro Glu Arg Arg

25

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<211> 91

<212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

<222> -54..-1

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Met Thr Ser Leu Leu Thr Thr Pro Ser Pro Arg Glu Glu Leu Met Thr -45

Thr Pro Ile Leu Gln Pro Thr Glu Ala Leu Ser Pro Glu Asp Gly Ala -35 -30 -25

Ser Thr Ala Leu Ile Ala Val Val Ile Thr Val Val Phe Leu Thr Leu -20 -15 -10

Leu Ser Val Val Ile Leu Ile Phe Phe Tyr Leu Tyr Lys Asn Lys Gly 5 1

Ser Tyr Val Xaa Tyr Glu Pro Thr Glu Gly Glu Pro Ser Ala Ile Val 15 20

Gln Met Glu Xaa Xaa Leu Ala Lys Gly Ser Glu

<210> 1350

<211> 50

<212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

<222> -18..-1

<400> 1350

Met Thr Lys Ala Xaa Leu Ile Tyr Leu Val Ser Ser Phe Leu Ala Leu -15 -10 - 5

Asn Gln Ala Ser Leu Ile Ser Arg Cys Asp Leu Ala Gln Val Leu Gln 1 5. 10

Leu Glu Asp Leu Asp Gly Phe Glu Gly Tyr Ser Leu Ser Asp Trp Leu 20 2.5 Cys Trp

<210> 1351

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<211> 36
<212> PRT
<213> Homo sapiens
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<222> -23..-1
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Met Ala Gln Leu Ile Met Trp Leu Lys Asn Gln Leu Ile Leu Leu Gly
                             -15
Ile Phe Arg Gly Ile Arg His Gln Ile Tyr Leu Ile Arg Thr Leu Gln
Ile Arg Gln Trp
10
<210> 1352
<211> 91
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -30..-1
Met Gly Pro Val Pro Gly Ala Ala Gly Val Xaa Pro Xaa Xaa Gly
                -25
                                      -20
Glu Leu Ala Xaa Thr Leu Ser Leu Thr Cys Ser Val Ser Gly Val Ser
         -10
                                - 5
Ile Thr Ser Tyr Tyr Trp Ser Trp Ile Arg Gln Ala Pro Gly Lys Gly
                          10
Pro Glu Trp Ile Gly Xaa Ile Asp His Ser Gly Asp Thr Asp Tyr Asn
                    25
Pro Ser Leu Gln Ser Arg Val Thr Leu Ser Val Asp Thr Ser Lys Asn
               40
Gln Phe Ser Leu Arg Leu Leu Ser Val Ser Ala
              55
<210> 1353
<211> 39
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -36.:-1
<400> 1353
Met Trp Phe Gln Thr Arg Ser Cys Gly His His Asp Pro Val Gly Ile
 -35 -30
                              -25
Thr Gly Val Thr Lys Val Ile Leu Pro Leu Phe Leu Cys Pro Leu Gly
                  -15
                                      -10
Met Val Glu Thr Ser Phe Gly
               1
<210> 1354
<211> 112
<212> PRT
<213> Homo sapiens
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<221> SIGNAL
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<222> -109..-1

<400> 1354

Met Ser Tyr Val Val Thr Lys Thr Lys Ala Ile Asn Gly Lys Tyr His
-105 -100 -95

Arg Phe Leu Gly Arg His Phe Pro Arg Phe Tyr Val Leu Tyr Thr Ile
-90 -85 -80

Phe Met Lys Gly Leu Gln Met Leu Trp Ala Asp Ala Lys Lys Ala Arg
-75 -70 -65

Arg Ile Lys Thr Asn Met Trp Lys His Asn Ile Lys Phe His Gln Leu
-60 -55 -50

Pro Tyr Arg Glu Met Glu His Leu Arg Gln Phe Arg Gln Asp Val Thr
-45 -40 -35 -30

Lys Cys Leu Phe Leu Gly Ile Ile Ser Ile Pro Pro Phe Ala Asn Tyr
-25
-20
-15

Leu Val Phe Leu Leu Met Tyr Leu Phe Pro Arg Gln Leu Leu Ile Arg
-10 -5 1

<210> 1355

<211> 57

<212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

<222> -19..-1

<400> 1355

Met Tyr Asn Tyr Tyr Phe Leu Ser Leu Pro Ser Phe Leu Cys Thr Cys
-15 -10 -5

Cys Gln Phe Phe Pro His Asp Pro Ile Ser Ser Gln Tyr Ser Ser Pro

1 5 10

Gln Gly Lys Pro Cys Gln Val Thr Tyr Lys Phe Leu Phe Ile Leu Leu 15 20 25

Gly His Val Tyr Pro Arg Asp Gly Gly 30

<210> 1356

<211> 81

<212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

<222> -79..-1

<400> 1356

Met Gln Gly Gly Asn Ser Gly Val Arg Lys Arg Glu Glu Glu Gly Asp
-75 -70 -65

Gly Ala Gly Ala Val Ala Ala Pro Pro Ala Ile Asp Phe Pro Ala Glu
-60 -55 -50

Gly Pro Asp Pro Glu Tyr Asp Glu Ser Asp Val Pro Ala Xaa Ile Gln
-45 -40 -35

Val Leu Lys Glu Pro Leu Gln Gln Pro Thr Phe Pro Phe Ala Val Ala
-30 -25 -20

Asn Gln Leu Leu Leu Val Ser Leu Leu Glu His Leu Ser His Val His
-15
-10
-5
Glu

<210> 1357

<211> 21

<212> PRT

<213> Homo sapiens

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<222> -17..-1
<400> 1357
Met Val Phe Tyr Cys Phe Ala Leu Cys Ile Ile Leu Ile Cys Val Met
   -15
                        -10
Ser Cys Arg His Leu
 1
<210> 1358
<211> 65
<212> PRT
<213> Homo sapiens
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<221> SIGNAL
<222> -43..-1
<400> 1358
Met Leu Trp Glu Thr Asp Leu Ser Thr Asn Lys Thr Pro Val Ser Cys
         -40
                          -35
Thr Ala Gly Ser Ala Cys Ala Leu Ser Leu Leu Gln Phe Pro Val Leu
 -25
                       -20
                                 -15
Ile Thr Gln Leu Cys Leu Gly Lys Gly Gln Ser Glu Pro Ile Gly Pro
 -10 -5
                            1
Leu Gln Asp Phe Val Ser Leu Glu Ser Thr Ser His Phe Tyr Ser Phe
     10
                        15
Phe
<210> 1359
<211> 32
<212> PRT
<213> Homo sapiens
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<221> SIGNAL
<222> -20..-1
<400> 1359
Met Thr Arg Arg Arg Thr Ser Leu Trp Cys Cys Ser Pro Ser Ser Arg
-20 -15 -10 -5
Thr Ser Ser Ser Leu Ser Trp Arg Met Gly Ser Gln Ile Arg Pro Ser
             1
<210> 1360
<211> 20
<212> PRT
<213> Homo sapiens
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<221> SIGNAL
<222> -18..-1
<400> 1360
Met Ala Phe Tyr Leu Trp Cys Phe His Ala Val Phe Phe Thr Val Cys
   -15
                         -10
Val Cys Val Arg
<210> 1361
<211> 60
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WO 99/53051
                                    599
<212> PRT
<213> Homo sapiens
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<221> SIGNAL
<222> -33..-1
<400> 1361
Met Thr Leu Asn Glu His Ala Ala Phe Lys His Leu Phe Asn Lys Ala
                              -25
His Leu Ala Pro Pro Leu Ile His Leu Thr Leu Ser Gly His Ser Thr
                          -10
Cys Phe Arg Glu His Arg Val Gly Gly Lys Val Ile Asp Glu Gln His
  1 5
Pro Lys Ala Glu Glu Ser Phe Leu Val Gln Glu Gly
              20
<210> 1362
<211> 29
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -26..-1
<400> 1362
Met Ser Phe Ser Ser Ser Leu Pro Pro Ser Leu Pro Pro Ser Leu Ala
 -25 -20 -15
Ser Phe Leu Leu Leu Thr Phe Leu Pro Ser Leu Pro Arg
                  -5
<210> 1363
<211> 105
<212> PRT
<213> Homo sapiens
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<221> SIGNAL
<222> -46..-1
<400> 1363
Met Arg Ala Gln Gly Leu Ser Cys Gly Tyr Pro Ala Arg Pro Leu Gln
   -45
                      -40
                                          -35
Pro Phe Leu Glu His Leu Ala Gly Ser Gly Ile Thr Lys Arg Thr Ala
                  -25
                                      -20
Pro Gly Cys Ala Pro Leu Arg Trp Val Pro Gln Ile Arg Gly Cys Pro
             -10
                                 -5
Leu Thr Arg Leu Ala Gln Arg Gly Ala Asp Thr Arg Thr Arg Glu Asn
                          10
                                             15
Leu Phe Tyr Ser Arg Phe Pro Gly Leu Gln Leu Pro Ala Ala Xaa Xaa
                      25
                                       30
Ser Ala Ser Ala Leu Ser Leu Cys Thr Pro Arg Ser Pro Pro Leu Pro
                  40
                                      45
Leu Pro Leu Pro Ile Asn Ser Pro Gly
              55
<210> 1364
<211> 52
<212> PRT
<213> Homo sapiens
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<220>

<221> SIGNAL <222> -37..-1 <400> 1364 Met Ala Ala Ser Ser Thr Ser His Leu Lys Asn Lys Thr Lys Thr Phe -35 -30 -25 Leu Ala Pro Met Thr Asn Cys His Ser Ile Ser Phe Leu Pro Phe Gln -15 -10 Ala Ser Ile Phe Gly Lys Thr Arg Leu Gln Ser Leu Arg Pro Ser His 1 5 Pro Tyr Pro His 15 <210> 1365 <211> 43 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -39..-1 <400> 1365 Met Pro Lys Asp Ala Asp Leu Ala Phe Ser Ala Ser Leu Phe Glu Arg -35 -30 -25 Ala Glu Ser Leu Tyr Thr Leu Ile Ser Lys Phe Xaa Ser Cys Xaa Cys -20 -10 -15 Val Ser Thr Leu Ala Tyr Thr Lys Gly Arg Gly <210> 1366 <211> 30 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -28..-1 <400> 1366 Met Phe Val Asn Arg Thr Cys Phe Asn Ser Ser Phe Pro Ile Trp Met -25 -20 -15 Pro Phe Leu Phe Leu Thr Leu Phe His Cys Leu Gly Arg Arg -10 -5 1 <210> 1367 <211> 63 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -37..-1 <400> 1367 Met Xaa Gly Ser Ser Arg Xaa Xaa Gly Leu Gln Ile Thr Ala Ser Arg -35 -30 -25 Thr Gly Lys Val Tyr Pro Ala Cys His Phe Leu Xaa Ala Val Ser Ala -15 -10 Ser Ser Ser Xaa Ala Cys Leu Trp Tyr Arg Pro Ile Ala Arg Arg Pro 1 5

Ala Gly Pro Gly Gly Ser Leu Ser Ser Ala Gln Val His Pro Ala

20

15

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<211> 100
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<213> Homo sapiens
<220>
<221> SIGNAL
<222> -26..-1
<400> 1368
Met Ile Leu Phe Asp His Leu His Cys Ser Ala Ser Gly Val Thr Phe
                   -20
                                       - 15
Trp Leu Leu Cys Arg Ile Cys Thr Phe Gly Phe His Gly Phe Ser Lys
-10 -5
                             1
Tyr Thr Val Ser Arg Gly Thr Gln Gln Gly Ala Gly Xaa Xaa Xaa Gly
        10
                           15
Leu His Gln Asn Trp Glu Gln Trp Arg Gly Leu Val Gly Lys Ser Ser
                        30
                                     35
Ser Ala Ala Val Val Phe Cys Leu Thr Phe Asp Leu Val Thr Ser Phe
                  45
Gln Leu Ala Ser Ala Ile Glu Ser Thr His Phe His Ala Gly Arg Asp
                60
Gly Ser His Leu
<210> 1369
<211> 31
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -29..-1
<400> 1369
Met Glu Leu Ser Leu Pro Pro Ser Met Cys Asp Tyr Pro Xaa Phe Cys
        -25 -20 -15
Leu Leu Phe Pro Ala Ser Leu Arg Leu Cys Val His Pro
<210> 1370
<211> 27
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -20..-1
<400> 1370
Met Asp Gln Lys Pro Leu Phe Thr Val Gly Cys Ala Gly Leu Ala Gly
-20 -15
Ser Cys Arg Gly Ile Ser Phe Leu Arg Thr Arg
              1
<210> 1371
<211> 45
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -23..-1
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<400> 1371 Met Ser Val Asn Xaa Ile Phe Ile Phe Tyr Phe Ile Leu Leu Leu -20 -15 -10 Ile Gln Asp Leu Thr Met Ser Pro Thr Ala Gly Met Gln Trp His Asn -5 1 5 His Gly Pro Pro Gln Ala Leu Pro Cys Pro Leu Arg Xaa 15 <210> 1372 <211> 78 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -45..-1 <400> 1372 Met Ser Phe Leu Asn Val Asp Ile Thr Asp Cys Leu Tyr Asn Pro Ser -45 -40 -35 Val Cys Pro Val Ala Gln Ser Ser Leu Thr Cys Asp Phe Ile Asp Gly -25 -20 -15 Ile Cys Leu Gly Ser Pro Leu Ala Glu Cys Leu Leu Gly Xaa Xaa Xaa -10 -5 Xaa Ile Xaa Gly Ile Asn Xaa Xaa Cys Phe Pro Cys Gly Val Lys Cys 10 15 Ala Gly Val Val Leu Gly Leu Ser Thr Leu Trp Tyr Val Val 25 <210> 1373 <211> 49 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -37..-1 <400> 1373 Met Lys Val Gly Lys Asp Ser Leu Glu Ser Leu Pro Ser Leu Cys Glu -30 -25 Lys His Ile Gly Pro Ser Gly Leu Phe Thr Phe Leu Ser Pro Ser Phe -15 -10 His Ser Val His Leu Ser Glu Leu Asn Glu Leu Tyr Thr Ile Ala Ala -5 5 Gly <210> 1374 <211> 30 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -17..-1 <400> 1374 Met Glu Ser Lys Val Leu Ile Ser Ala Ser Leu Leu Arg Ala Ser Gln -15 -10 Leu Lys Ile Lys Xaa Asn Lys Met Thr Asn Phe Leu Ile Leu 1 5

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<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -24..-1
<400> 1375
Met Ala Ala Ser Val Leu Asn Thr Val Leu Arg Arg Leu Pro Met Leu
        -20 -15
Ser Leu Phe Arg Gly Ser His Xaa Xaa Phe Arg Phe Pro Ser Arg Leu
                           1
     - 5
Phe Ala Pro Lys Leu Pro Leu Arg Lys Ile Leu Cys Pro Gln Phe Pro
                                      20
Phe Leu Leu Ile Arg Met Ser Pro Gly Asn Ile Trp Asn Gln Lys Asn
                                 35
                 30
Thr Arg Ser Asp Met Val Leu Ala Pro Ser Gly Leu Thr Thr Ala Ala
                              50
Thr Thr Arg Val Val Tyr Pro His Ser Gly Leu Gly Arg His Val Phe
                             65
Val Gly Ile Lys Leu Leu Gly Ile Pro Ala Pro Ser Val Glu Ile Thr
                          80
Ser Cys Met Leu Thr Leu
  90
<210> 1376
<211> 76
<212> PRT
<213> Homo sapiens
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<222> -18..-1
<400> 1376
Met Lys Ser Asn Leu Thr Leu Leu Thr Cys Leu Xaa Leu Xaa Gly Gly
          -15 -10
Glu Gly Trp Lys Gly Ala Ala Val Cys Phe Glu Thr Val Glu Gln Phe
                                          10
Cys Ser Leu Arg Lys Trp His Val Thr Tyr Leu Xaa Lys Asp Ser Gly
                                     25
                20
Leu Cys Gln Gln Gln Glu Lys Leu Tyr Thr Lys Phe Leu Val Cys Ile
                                  40
            35
Lys Gly Ala Ser Asn Glu Glu Ile Lys Lys Thr Tyr
<210> 1377
<211> 24
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SIGNAL
 <222> -14..-1
 <400> 1377
 Met Leu Ala Ser Pro Cys Val Leu Val Gln Gly Ser Gly Xaa Ser Leu
                                   -5
             -10
 Val Arg Thr Pro Trp Cys Pro Glu
                           10
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<210> 1378
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<220>
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<222> -19..-1
<400> 1378
Met Asn Ile Ile Leu Glu Ile Leu Leu Leu Ile Thr Ile Ile Tyr
                -15
                                    -10
                                                     -5
Ser Tyr Leu Glu Ser Leu Val Lys Phe Phe Ile Pro Gln Arg Arg Lys
                         5
Ser Val Ala Gly Glu Ile Val Leu Ile Thr Gly Ala Gly His
<210> 1379
<211> 53
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL '
<222> -39..-1
<400> 1379
Met Asp Leu Ile Gly Phe Gly Tyr Ala Ala Leu Val Thr Phe Gly Ser
               -35
                                   -30
                                                      -25
Ile Phe Gly Tyr Lys Xaa Arg Gly Gly Val Pro Ser Leu Ile Ala Gly
            -20
                                -15
                                                   -10
Leu Phe Val Gly Cys Leu Ala Gly Tyr Xaa Ala Tyr Arg Val Ser Asn
     - 5
                           1
Asp Lys Arg Asp Val
<210> 1380
<211> 68
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<222> -19..-1
<400> 1380
Met Glu Gly Val Ala Xaa Xaa Thr Phe Leu Ala Ala Xaa Arg Arg Leu
                                   -10
Val Thr Gly Gln Thr Ser Pro Arg Gly Thr Trp Cys Leu Tyr Pro Gly
                           5
                                               10
Phe Cys Arg Ser Val Ala Cys Ala Met Pro Cys Cys Ser His Arg Ser
                      20
                                         25
Cys Arg Glu Asp Pro Gly Thr Ser Glu Ser Arg Glu Met Val Arg Val
                   35
                                      40
Arg Asp His Gly
<210> 1381
<211> 37
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WO 99/53051 605 <222> -21..-1 <400> 1381 Met Thr Gly Gln Phe Thr Lys Glu Ile Gly Leu Ile Gly Leu Thr Val -10 -15 Pro Cys Gly Trp Gly Ser Leu Ile Thr Met Ala Glu Gly Arg Glu Glu 5 Gln Val Thr Ser Gly 15 <210> 1382 <211> 24 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -14..-1 <400> 1382 Met His Leu Gly Phe Ile Leu Ser Phe His Gly Leu Ile Ala Asn Phe -5 -10 Phe Phe Cys Leu Asn Ala Pro Ala <210> 1383 <211> 26 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -20..-1 <400> 1383 Met Gly Arg Thr Arg Glu Ala Gly Cys Val Ala Ala Gly Val Val Ile -15 -10 Gly Ala Gly Ala Ala Thr Val Tyr Thr Asp 1 <210> 1384 <211> 60 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -38..-1 <400> 1384 Met Glu Ser His Ser Val Ala Gln Ala Arg Met Arg Xaa Xaa Asn Leu -25 -30 -35 Ser Ser Leu Gln Pro Leu Pro Pro Gly Phe Lys Pro Xaa Ser Cys Leu -10 -15 -20 Ser Leu Leu Ser Asn Xaa Asp Tyr Arg His Ala Pro Pro Phe Leu Ala 1 Asn Phe Xaa Ile Phe His Arg Asp Gly Val Ser Pro 20 15

<210> 1385 <211> 61 <212> PRT <213> Homo sapiens

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<222> -55..-1
<400> 1385
Met Phe His Gly Ile Pro Ala Thr Pro Gly Ile Gly Ala Pro Gly Asn
                      -45
                 -50
Lys Pro Glu Leu Tyr Glu Val Arg Gln His Gly Arg Ala Val Cys Gly
              -35
                      -30
                                              -25
Gly Glu Asp Asn Ala Ser Pro Gly Glu Gly Leu His Gln Gly Leu Cys
              -15
          -20
Leu Pro Gln Arg Val His Cys Ser Leu Leu Pro Ala Pro
                        1
<210> 1386
<211> 25
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -22..-1
<400> 1386
Met Pro His Ser Phe Val Ser Cys Asn Leu Phe Leu Ser Val Leu Asn
  -20 -15
Phe Leu Phe Leu Leu Ser Phe Ser Thr
<210> 1387
<211> 30
<212> PRT
<213> Homo sapiens
<220>
<221> SIGNAL
<222> -26..-1
<400> 1387
Met Ala Val Phe Leu Gln Lys Arg Lys His Thr Met Arg His His Leu
 -25 -20
                               -15
Leu Leu Ser Thr Leu Ala Thr Ile Ala Gly Asn Ile Tyr Arg
           -5
<210> 1388
<211> 47
<212> PRT
<213> Homo sapiens
<220>
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<222> -26..-1
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Val Glu Ala Leu Leu Arg Ala Val Phe Gly Val Val Val Asp Glu Ala
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Ile Gln Lys Gly Thr Ser Val Ser Gln Lys Val Cys Xaa Trp Lys
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Met Arg Leu Ala Met Val Gln Leu Val Leu Asn Asn Leu Lys Thr Phe
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Tyr Pro Phe Ala Asp His Asp Leu Ala Glu Leu Pro Val Ser Ser Pro
-20
                  -15
                                    -10
Leu Cys His Ala Val Leu Lys Thr Leu Gln Cys Trp Glu Gln Val Leu
              1
                          5
Leu Arg Arg Leu Glu Ile His Gly Gly Pro Pro Gln Asn Tyr Ile Ala
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Ser His Thr Ala Xaa Xaa Ser Leu Ser Ala Gly Pro Ala Ile Leu Arg
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His Lys Ala Leu Leu Glu Pro
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Met Phe Lys Leu Phe Leu Phe Leu Phe Ile Leu Xaa Tyr Phe Xaa Xaa
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Tyr Thr Leu Ser Ser Gly Ile Tyr Val Gln Asn Val Gln Val Cys Tyr
     1
                       5
Ile Gly Ile His Met Pro Trp Trp Phe Ala Ala Pro Met Asn Leu Ser
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Ser Ala Leu
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Met Ile Tyr Ser Arg Ser Leu Glu Leu Ile Pro Leu Leu Ser Glu Ile
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Gln Arg
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Met His Lys Phe Phe Arg His Phe Tyr Ser Asp Phe Leu Ile Tyr Phe
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Phe Gln Leu His Ser Cys Cys His Asp Lys Val Thr Ala Xaa Arg Ala
             -5
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Tyr Xaa His Tyr Ser Ser Leu Leu Thr Pro Tyr Leu Ser Gln His Pro
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Cys Pro His Pro Gly
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Glu Leu Arg Tyr Leu Ser Ala Ala Thr Gly His Pro Ile Ala Thr Pro
               -5
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Arg Pro Ile Gly Thr Xaa Val Lys Ala Phe Arg Ala His Arg Val Thr
          10
                            15
Ser Glu Lys Leu Cys Arg Ala Gln His Glu Leu His Phe Gln Ala Ala
   25
                         30
Thr Tyr Leu Cys Leu Leu Arg Xaa Ser Gly Asn Met Trp Pro Tyr Ile
40 45
Arg Asn Phe Met Ala Arg Val Ser Ala Arg Trp Arg Ser Leu Leu Ala
55 60
                                   65
Trp Trp Val Ser Ser Cys Pro Ile Ser Leu Glu Gly Arg Ala Gly Ser
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His Glu His Gly Glu Tyr Pro Trp Met
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-25
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                                              -15
 Trp Cys Ser Leu Val Leu Ser Phe Cys Arg Leu His Lys Gln Ser Ser
   -10
             - 5
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 Met Thr Val Met Glu Ala Gln Glu Ser Pro Leu Phe Asn Asn Val Lys
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 Leu Gln Arg Lys Leu Pro Val
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 Pro Phe Leu Ser Pro Pro Leu
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Met Ser Ser Glu Pro Pro Pro Pro Pro Gln Pro Pro Thr His Gln Ala
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Pro Leu Cys
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                         -10
 Ala Leu Ala Ser Gln Ile His Cys Arg Val
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<400> 1405
Met Pro His Asn His Leu Glu Gly Asp Ala Leu Leu Arg Val Pro Val
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                                     -15
Leu Cys Ile Trp Arg Ala Trp Leu Arg Ala Glu Val Gly Gly Arg Ala
-10 -5
                                  1
Pro Leu Pro Gly Arg Met
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Met Lys Asn Thr Leu Tyr Tyr Asn Phe Cys Leu Phe Trp Ile Xaa Leu
 -20 -15 -10
Pro Pro His Thr Cys Thr His Thr Asp Thr His
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WO 99/53051 612 <400> 1407 Met Cys Leu Asn Pro Ala Cys Ser Gly Pro Leu Ser Leu Arg Ser Pro -30 -25 Arg Leu Pro Pro Leu Phe Cys Thr Phe Leu Ser Leu Ser Leu His Pro -15 -10 -5 Trp Gly Gly Phe Phe Leu Cys Ala Trp Ile Ser Xaa Phe Leu Pro Trp 7 5 Val Cys Val Xaa Ala 15 <210> 1408 <211> 101 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -89..-1 <400> 1408 Met Ala His Ser Lys Thr Arg Thr Asn Asp Gly Lys Ile Thr Tyr Pro -85 -80 -75 Pro Gly Val Lys Glu Ile Ser Asp Lys Ile Ser Lys Glu Glu Met Val ~70 · -65 Arg Arg Leu Lys Met Val Val Lys Thr Phe Met Asp Met Asp Gln Asp -55 -50 -45 Ser Glu Glu Glu Lys Glu Leu Tyr Leu Asn Leu Ala Leu His Leu Ala -35 Ser Asp Phe Phe Leu Lys His Pro Asp Lys Asp Val Arg Leu Leu Val -20 -15 Ala Cys Cys Leu Ala Asp Ile Phe Arg Ile Tyr Ala Pro Glu Ala Pro - 5 1 5 Tyr Thr Ser Pro Lys 10 <210> 1409 <211> 26 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -18..-1 <400> 1409 Met Xaa Ser Cys Glu Ile Ala Trp Thr Ala Thr Pro Ser Ser Ala Ala -15 -10 Phe Ala Gln Ala Phe Pro Thr Ala Cys Asn 1 <210> 1410 <211> 46 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -25..-1 <400> 1410 Met Cys His Tyr Leu Trp Lys Lys Leu Tyr Ser Thr Leu Leu Tyr Ile

-20

Leu Ser Arg Ser Ser Gly Arg Arg Gly Lys Asn Leu Ile Thr Ala Val

-15

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- 5
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 Ala Ser Arg Ala Gly Asn Leu Gly Val Trp Thr Glu Lys Gly
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 Met Xaa Ser His Arg Leu Phe Gly Cys Phe Pro Ser Asp Leu Ser Arg
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                                    -15
 Met Val Leu Leu Ser Ser Ala Leu Leu Ser Thr Glu Asn
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Met Arg Pro Ser His Ser Ser Ala Tyr Leu Cys Leu His Leu Cys Ala
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Phe Ser Thr Glu Gly Trp Met Asn Arg Leu Ser Ser Ser Leu Arg Leu
-5
                   1
                               5
Ala Pro Leu Pro Leu Tyr Pro Phe Cys Leu Pro Ser Asn Ser Pro
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Arg Gln Gly Phe Thr Ser Lys Ala Asp Pro Gln Gly Ser Gly Arg Ile
Thr Ala Ala Val Ile Glu His Leu Glu Arg Leu Ala Leu Val Asp Phe
                               25
Gly Ser Arg Glu Ala Val Ala Arg Leu Glu Lys Ala Ile Ala Phe Ala
                           40
Asp Arg Leu Arg Ala Val Asp Thr Asp Gly Val Glu Pro Met Glu Ser
                       55
                                          60
Val Leu Glu Asp Arg Cys Leu Tyr Leu Arg Ser Asp Asn Val Val Glu
                                       75.
Gly Asn Cys Ala Asp Glu Leu Leu Gln Asn Ser His Arg Val Val Glu
               85
Glu Tyr Phe Val Ala Pro Pro Gly Asn Ile Ser
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                               105
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 Leu Glu Glu Gly Ser Pro Gly Ser Gly Thr Tyr Thr Arg His Gly Tyr
                  -60
                               -55
 Ile Phe Ser Ser Leu Xaa Gly Cys Leu Met Lys Ser Ser Glu Asn Gly
               -45
                               -40
 Ala Leu Pro Val Val Ser Val Val Arg Glu Thr Glu Ser Gln Leu Leu
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 Pro Asp Val Gly Ala Ile Val Thr Cys Lys Ser Leu Ala Ser Ile His
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Ala Leu Pro
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                                    -50
Thr Met Ala Gln Tyr Gln Ala Ile Ser Lys His Leu Pro Lys Val Cys
              -40
                                 -35
Gln Glu Pro His Leu Pro Arg Gly His Leu Gln Pro Gln Gln His Arg
        -25
                             -20
Leu Leu Val Ala Arg Leu His Met Ala Ser Leu Ala Arg Arg Cys Thr
    -10
               -5
Glu Trp Ala Lys Leu His Cys Ser Asp Ala Arg Leu Pro Trp Val Ser
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Met Lys Pro Gln Thr Leu Ala Val Ser Val Thr Val Leu Lys Asp Gly
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Val Ala Gly Val Cys Phe Phe Arg Arg Ser Asp Ala Ser Glu Val Ser
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Ser Phe Trp
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Met Val Val Leu Ile Cys Leu Ser Leu Met Ile Ser Asn Thr Glu Leu
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                  -35
Phe Phe Ile Arg Phe Leu Thr Ala Cys Met Pro Ser Phe Glu Lys Cys
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Leu Phe Leu Ser Phe Ala His Phe Leu Met Gly Arg Thr His Arg
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Met Ser Ser Leu Tyr Ile Leu Asp Ile Ser Leu Leu Ser Asp Ile Leu
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                                          -10
Phe Ala Asn Ile Phe Ser His Ser Trp Asp Val Phe Pro Leu Ser Phe
  -5
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Leu Phe Phe Ser
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                                 -75
Arg His Ser Pro Arg Arg Leu Ser Gly Ala Leu His Leu Glu Ala Gly
           -65
                              -60
Cys Asp Arg Asn Ala Thr Thr Val Arg Pro Leu Arg Ala Lys Xaa Gly
                          -45
                                             -40
Asp Ala Leu Pro Glu Glu Ile Arg Glu Pro Ala Leu Arg Asp Ala Gln
                     -30
                                      -25
Trp Val Arg Asp Gln Leu Ala Ser Ser Leu Leu Ile Ile Leu Leu Pro
-20
            -15
                             -10
Asn Thr Gln Asp Leu Arg Ile Gln Lys Asp Pro Thr Pro Gly Pro
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PCT/IB99/00712 616 <400> 1420

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Cys Lys Asn Phe Leu Lys Lys Trp Arg Met Lys Arg Glu Ser Leu Met -25 -20

Glu Trp Leu Asn Ser Leu Leu Leu Leu Cys Leu Tyr Ile Tyr Pro -15 -10 -5

His Ser His Gln Val Asn Xaa Xaa Ser Ser Leu Leu Thr Met Asp Leu 1 5 10 Gly Arg Val Asp Xaa Xaa Asn Glu Ser Arg Phe Ser Val Val Tyr Thr

Pro Val Thr Asn Thr Thr Pro

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Leu

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<221> SIGNAL

<222> -31..-1

<400> 1422

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Arg His Pro Val Cys Leu Leu Val Leu Gly Met Ala Gly Ser Gly Lys -15 -10 -5

Thr Thr Phe Val Gln Arg Leu Thr Gly His Leu His Ala Gln Gly Thr 10 15

Pro Pro Tyr Val Ile Asn Leu Asp Pro Ala Val His Glu Val Pro Xaa 20 25

Pro Ala Asn Ile Asp Ile Arg Asp Thr Val Lys Tyr Lys Glu Val Met

Lys Gln Tyr Gly Leu Gly Pro Asn Gly Gly Ile Val Thr Ser Leu Asn 55 60

Leu Phe Xaa Thr Arg Phe Asp Gln Val Met Lys Leu Leu Arg Arg Pro 70 75

Arg Thr Cys Pro Asn Met Cys 85

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WO 99/53051 617 <221> SIGNAL <222> -20..-1 <400> 1423 Met Tyr Ala Cys Ala Met Leu Val Leu Leu Thr His Gly Leu Ile His -15 -10 Tyr Ser Phe Thr His His Leu His Tyr Val Phe Ile Leu Ile Leu Pro 1 5 Leu Pro Pro Pro Gln 15 <210> 1424 <211> 45 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -24..-1 <400> 1424 Met Gly Phe Leu Gly Ser Pro Arg Gln Arg Asn Ser Met Cys Leu Leu -20 -15 Leu Asp Val Ser Ser Xaa Lys Ser Thr Asp Asn Xaa Xaa Xaa Xaa 1 Leu Ile Ile Tyr Tyr Leu Ile Thr Arg Lys Gly Pro Gly 15 <210> 1425 <211> 51 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -43..-1 <400> 1425 Met Ser Cys Gln Xaa Xaa Leu Ala Xaa Thr Leu Thr Trp Leu Met Ile -40 -35 Arg Gly Arg His Pro Tyr Leu Thr Arg Arg Ser Ala Arg Asn Phe Asn -20 -15 Ile Phe Leu Ala Ala Pro Ser Pro Val Trp Gln Pro Gln Arg Thr Arg -10 -5 1 Arg Pro Gln <210> 1426 <211> 51 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -34..-1 <400> 1426 Met Cys Pro Ala Trp Leu Pro Cys Trp Thr Ala Gln Thr Glu His Leu -30 -25 Asp Arg Tyr Arg Lys Phe His Gln Met Ala Leu Xaa Pro Gly Thr Ser -15 -10 -5

Arg Ala Gln Ala Leu Leu Tyr Asn Glu Val Leu Glu Arg Phe Met Phe

10

5

1

Thr Arg Leu

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<400> 1429

Met Ala Glu Ile Thr Asn Ile Arg Pro Ser Phe Asp Val Ser Pro Val

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                                                   -25
  Val Ala Gly Leu Ile Gly Ala Ser Val Leu Val Val Cys Val Ser Val
                            -15
                                      -10
  Thr Val Phe Val Trp Ser Cys Cys Xaa Gln Gln Ala Glu Lys Lys His
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                                    5
  Lys Asn Pro Pro Tyr Lys Phe Ile His Met Leu Lys Gly Xaa Ser
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  <222> -15..-1
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 Phe Phe Ser Leu Val Cys Val Leu Phe
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 <222> -29..-1
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Leu Thr His Thr His Thr Cys Thr Pro Pro Ser Thr Ala His Pro Arg
Gly
<210> 1432
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<400> 1432
Met Phe Xaa Met Ile Leu Leu Cys Phe Leu Ala Val Ser Asn Phe Asn
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                                      -5 ·
Lys Leu Leu Trp Gly Xaa
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<210> 1433
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WO 99/53051 620 <400> 1433 Met Phe Leu Ile Leu Gly Lys Phe Ser Arg Val Met Gly Leu Pro Leu -20 -15 Ala Cys Phe Ser Leu Phe Gly Xaa Leu Pro Gln Gly Leu Leu Ile -5 1 <210> 1434 <211> 30 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -19..-1 <400> 1434 Met Val Ala Leu Gly Gln Leu Ala Xaa Leu Pro Gly Xaa Xaa His Gly -15 -10 Gly Leu Ser Ala Val Thr Val Val Leu Pro Ile Leu Leu Cys 1 5 <210> 1435 <211> 22 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -15..-1 <400> 1435 Met Pro Val Ser Phe Val Cys Leu Leu Phe Arg Asn Val Tyr Ser Asn -15 -10 · -5 Leu Leu Pro Ser Phe Phe <210> 1436 <211> 64 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -27..-1 <400> 1436 Met Gly Ser Gly Gly Asp Ser Leu Leu Gly Gly Arg Gly Ser Leu Pro -20 -15 Leu Leu Pro Ala His His Gly Arg His Gly Ser Gly Leu Pro Ala -5 1 Pro Asp Pro Ser Pro Pro Pro Gly Pro Ala Val Pro Gly Pro Trp Pro 10 15 Cys Gln Asp Glu Leu Pro Ser Leu Arg Pro Ala Thr Ser His His Phe 30 <210> 1437 <211> 43 <212> PRT <213> Homo sapiens <220> <221> SIGNAL

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622 -25 -20 -15 Asn Cys Leu Leu Xaa Xaa Ser Trp Gly Leu His Leu Tyr Arg Phe Leu -5 1 Ala Pro <210> 1441 <211> 16 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -14..-1 <400> 1441 Met Val Ser Leu Cys Val Ala Ala Leu Phe Pro Leu Gln Ala Tyr Gly -10 -5 <210> 1442 <211> 28 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -24..-1 <400> 1442 Met Leu Ser Ile Phe Ser Phe Phe Cys Arg Pro Phe Val Tyr Leu Leu -20 -15 Leu Arg Asn Leu Xaa Ser Tyr Ser Leu Pro Thr Thr -5 <210> 1443 <211> 94 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -77..-1 <400> 1443 Met Phe Pro Val Ser Ser Gly Cys Phe Gln Glu Gln Glu Thr Asn -75 -70 Lys Ser Leu Pro Arg Ser Ala Ser Thr Pro Glu Thr Arg Thr Lys Phe -55 Thr Gln Asp Asn Leu Cys Xaa Ala Gln Arg Glu Arg Leu Asp Ser Ala -45 -40 -35 Asn Leu Trp Val Leu Val Asp Cys Ile Leu Arg Asp Thr Ser Glu Asp -25 -20 Leu Gly Leu Gln Cys Asp Ala Val Asn Leu Ala Phe Gly Arg Arg Cys -10 - 5 Glu Glu Leu Glu Asp Ala Arg His Lys Leu Gln Xaa His Leu 10 <210> 1444 <211> 20 <212> PRT <213> Homo sapiens <220> <221> SIGNAL

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Met Pro Leu Val His Ser Phe Leu Trp Leu Ser Ser Ile Leu Tyr Ile
-15 -10 -5

Tyr His Leu Arg

<210> 1445

<211> 56

<212> PRT

<213> Homo sapiens

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<222> -24..-1

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Met Ile Ser Asn Gly Lys Phe Phe Cys Phe Phe Xaa Val Phe Xaa Phe
-20 -15 -10

Xaa Phe Leu Xaa Arg Xaa Leu Xaa Xaa Xaa Pro Arg Leu Glu Cys Asn
-5 1 5

Gly Lys Xaa Ser Ala His Xaa Asn Leu Arg Leu Leu Ser Xaa Ser Asn 10 15 20

Ser Leu Ala Ser Ala Pro Arg Gly

<210> 1446

<211> 101

<212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

<222> -90..-1

<400> 1446

Met Glu Asp Ser Ala Ser Ala Ser Leu Ser Ser Ala Ala Ala Thr Gly
-90 -85 -80 -75

Thr Ser Thr Ser Thr Pro Ala Ala Pro Thr Ala Arg Lys Gln Leu Asp
-70 -65 -60

Lys Glu Gln Val Arg Lys Ala Val Asp Ala Leu Leu Thr His Cys Lys
-55
-50
-45

Ser Arg Lys Asn Asn Tyr Gly Leu Leu Leu Asn Glu Asn Glu Ser Leu
-40 -35 -30

Phe Leu Met Val Val Leu Trp Lys Ile Pro Ser Lys Glu Leu Arg Val
-25
-20
-15

Arg Leu Thr Leu Pro His Ser Ile Arg Ser Asp Ser Glu Asp Ile Cys
-10 -5 1 5

Xaa Phe Thr Lys Asp

<210> 1447

<211> 59

<212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

<222> -29..-1

<400> 1447

Met Asn Ala Glu Gly Ala Ser Pro Gly Lys Glu Thr Asn Thr Gly Thr

WO 99/53051 624 -25 -20 Leu Ile Glu Leu Asn Leu Xaa Ser Pro Val Ala Leu Gln Trp Pro Leu -10 -5 Ser Ser Pro Ser Cys Leu Arg Ile Leu Ser Asn Lys Val Pro Arg Asn 10 Leu Arg Trp Gln Lys His Tyr Ser Thr His Gln <210> 1448 <211> 81 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -63..-1 <400> 1448 Met Leu Gly Leu Asp Glu Leu Gly Arg Ser Gly Cys Gly His Cys Thr -55 -50 Gln Ala Asp Leu Arg Phe Gly Asp Ala Ala Gly Xaa Glu Pro Arg Xaa -45 -40 Arg Xaa Thr His Arg Asn Thr Ala Ala Ala Arg Val Pro Pro Pro Pro -30 -25 -20 Arg Val Met Ala Ala Ala Ala Leu Arg Ala Pro Ala Gln Ser Ser -15 -10 -5 Val Thr Phe Glu Asp Val Ala Val Asn Phe Ser Leu Glu Glu Trp Ser 10 Leu <210> 1449 <211> 49 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -26..-1 <400> 1449 Met Ser Ala Leu Lys Asp Phe Arg Glu Phe Leu Asn Trp Trp Gly Asn -20 -15

Leu Ser Phe His Leu Gln Glu Ala His Gly Ser Glu Ile Ala Glu Met -5 1 Gly Ala Gly Ile Leu Glu Glu Lys Asn Tyr Gly Gln Gln Xaa His Cys 10 15

Asn

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<400> 1450

Met Ser Leu Pro Pro Phe Phe His Pro Ser Pro Ala Pro Ser Leu Ala -25 -20 Pro Pro Pro Ser Leu Phe Leu Ser Leu Pro Pro Ser Leu Ser Pro Pro -5 Leu Pro Ala Arg

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Met Phe Phe Leu Cys Gly Phe Leu Tyr Leu Cys Phe Ile Ser Phe Phe
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Phe Phe
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<210> 1452
<211> 51
<212> PRT
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<222> -42..-1
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Met Lys Ala Gly Pro Cys Ser Cys Gln Glu Gly Gly Arg Gln Trp Ala
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                                              -30
His Gly Ser Val Pro Leu Gln Pro Thr Ala Arg Leu Ala Ala Leu Gly
                      -20
                                          -15
Ile Phe Leu Cys Pro Gly Glu Thr Leu Ser Ala Ser Leu His Trp Asn
                  -5
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Pro Ile Gly
<210> 1453
<211> 53
<212> PRT
<213> Homo sapiens
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<222> -23..-1
<400> 1453
Met Leu Ser Gln Ser Phe Gln Lys Asn Lys Thr Asn Leu Leu Cys Leu
       -20
                            -15
                                      -10
Thr Phe Gln Arg Cys Gln Ser Tyr Asn Trp Leu Asn Ile Phe Glu Ala
    - 5
                         1
Thr Tyr Met Thr Thr Leu Phe Ile Ser Val Ile Xaa Thr Asn Phe Leu
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Lys Arg Tyr Leu Leu
<210> 1454
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<222> -25..-1
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 Met Phe Leu Phe Cys Trp Glu Lys Ser Pro Arg Met Gln Leu Leu Gly
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 Cys Met Val Leu Tyr Asp Cys Phe Ser Phe Lys Lys Leu Pro Gly
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 Met Ser Phe Ile Ser Val Ile Phe Pro Leu Ile Leu Leu Asn Arg Phe
 -30 -25
                                -20
Ser Phe Val Cys Phe Phe His Val Phe Tyr Cys Val Phe Cys Asn Val
                -10
                                   -5
Ser Ser Leu Phe Ser Tyr Gln Phe Leu Leu His Phe Cys Asp Asp
                           10
<210> 1456
<211> 35
<212> PRT
<213> Homo sapiens
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<222> -31..-1
<400> 1456
Met His Glu Tyr Leu Pro Arg Asn Phe His Asp Phe Asn Ser Pro Asn
                       -25
                                           -20
Ser Lys Leu Gly Met Gly Met Gly Phe Phe Ser Gly Val Lys Ser Trp
-15
                   -10
                                       -5
Ile Gly Gly
<210> 1457
<211> 83
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<222> -36..-1
<400> 1457
Met Ala Ser Xaa Val Pro Val Lys Asp Lys Leu Leu Glu Val Lys
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                                           -25
Leu Gly Glu Leu Pro Ser Trp Ile Leu Met Arg Asp Phe Ser Pro Ser
-20
                   -15
                                       -10
                                                          -5
Gly Ile Phe Gly Ala Phe Gln Arg Gly Tyr Tyr Arg Tyr Tyr Asn Lys
Tyr Ile Asn Val Lys Lys Gly Ser Ile Ser Gly Ile Thr Met Val Leu
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Ala Cys Tyr Val Leu Phe Ser Tyr Ser Phe Ser Tyr Lys His Leu Lys
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                                          40
His Glu Ser
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627 <211> 24 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -18..-1 <400> 1458 Met Val Ile Ser Ala Gly Ala Leu Leu Trp Met Ala Trp Asp Gly Gln -15 Leu Ser Arg Pro Glu Gly Ala Arg <210> 1459 <211> 31 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -18..-1 <400> 1459 Met Val His Cys Asn Leu Glu Leu Leu Gly Ser Ser Tyr Asn Pro Ile -15 -10 Ser Ala Ser Pro Val Ala Arg Thr Ile Ser Cys Pro Ala Ile Val 1 5 <210> 1460 <211> 127 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -88..-1 <400> 1460 Met Leu Gly Ser Gly Phe Lys Ala Glu Arg Leu Arg Val Asn Leu Arg -85 -80 Leu Val Ile Asn Arg Leu Lys Leu Glu Lys Lys Lys Thr Glu Leu -65 Ala Gln Lys Ala Arg Lys Glu Ile Ala Asp Tyr Leu Ala Ala Gly Lys -50 Asp Glu Arg Ala Arg Ile Arg Val Glu His Ile Ile Arg Glu Asp Tyr -35 -30 Leu Val Glu Ala Met Glu Ile Leu Glu Leu Tyr Cys Asp Leu Leu -15 Ala Arg Phe Gly Leu Ile Gln Ser Met Lys Glu Leu Asp Ser Gly Leu -5 1 Ala Glu Ser Val Ser Thr Leu Ile Trp Ala Ala Pro Arg Leu Gln Ser 15 Glu Val Ala Glu Leu Lys Ile Val Ala Asp Gln Leu Cys Pro Ser 30 <210> 1461 <211> 54 <212> PRT <213> Homo sapiens <220> <221> SIGNAL

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<220> <221> SIGNAL <222> -67..-1

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Met Cys Asp Ala Phe Val Gly Thr Trp Lys Leu Val Ser Ser Glu Asn -60 -55 Phe Asp Asp Tyr Met Lys Glu Val Gly Val Gly Phe Ala Thr Arg Lys -50 -45 -40 Val Ala Gly Met Ala Lys Pro Asn Met Ile Ile Ser Val Asn Gly Asp -30 -25 Val Ile Thr Ile Pro His Leu Val Leu Pro Leu Pro Met Leu Pro Thr

<220>

<221> SIGNAL

<222> -54..-1

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Met Val Ser Met Ser Phe Lys Arg Asn Arg Ser Asp Arg Phe Tyr Ser
-50
-45
-40

Thr Arg Cys Cys Gly Cys Cys His Val Arg Xaa Gly Thr Ile Ile Leu
-35 -30 -25

Gly Thr Trp Tyr Met Val Val Asn Leu Leu Met Ala Xaa Leu Leu Thr
-20 -15 -10

Val Glu Val Thr His Pro Asn Ser Met Pro Ala Val Asn Ile Gln Tyr
-5 1 5 10

Glu Val Ile Gly Asn Tyr Tyr Ser Ser Glu Arg Met Ala Asp Asn 15 20 25

<210> 1469

<211> 94

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<222> -31..-1

<400> 1469

Met Ala Ala Ala Thr Leu Thr Ser Lys Leu Tyr Ser Leu Leu Phe Arg
-30 -25 -20

Arg Thr Ser Thr Phe Ala Leu Thr Ile Xaa Arg Xaa Xaa Ser Cys Ser -15 -5 1

Ser Xaa Ala Pro Ser Ile Lys Ala Arg Thr Leu Ser Thr Thr Thr Ser 5 10 15

Thr Arg Gly Ser Cys Gly Asn Thr Ser Ser Thr Ser Met Arg Thr Ser 20 25 30

Ser Ser Leu Glu Ala Pro Ile Gln Ala Arg Arg Thr Arg Ser Thr Gln 35 40 45

Gln Leu Phe Ala Gln Ser Trp Ser Leu Ser Xaa Lys Met Met 50 55 60

<210> 1470

<211> 83

<212> PRT

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<220>

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<222> -41..-1

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Met Lys Ala Ile Lys Lys Ser Leu Thr Glu Glu Glu Tyr Leu Tyr Leu
-40 -35 -30

Asp Phe Ser His Gln Thr Glu Gly Cys Ile Phe Pro Leu His Thr Ser

Val Thr Leu Phe Leu Ser Tyr Cys Asp Cys Lys Ile Phe Lys Ile

Cys Leu Val Val Thr Lys Glu Val Ser Arg Asp Xaa Ser Leu Leu Arg

Asp Asp Leu Ile Gln Asp Val Glu Ile Gln Ile Ile Ser Arg Gln Glu
25 30 35

Leu Pro Pro

40

<210> 1471

<211> 20

<212> PRT

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631
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 <222> -14..-1
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Met Phe Leu Cys Val Cys Tyr Phe Ile Arg Lys Ser Thr Ser Phe Phe
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 Ser Ile Ser Ser
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<400> 1472
Met Gly Lys Pro Arg Gly Glu Met Leu Glu Val Val Lys Thr Val
-45
                                       -35
Ser Thr Phe Thr Leu Gly Gly Trp Lys Gly Thr Ala Pro Val Ser Cys
                -25
                                    -20
Ala Trp Trp Leu Leu Pro Val Trp Lys Leu Gly Gly Gln Leu Glu
           -10
                                -5
Arg Arg Lys Asn Pro Lys Glu Tyr Cys Leu Gly Ser Trp Val Trp Leu
                       10
Ser Pro Gln Leu Ala Pro Arg
<210> 1473
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<213> Homo sapiens
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<222> -16..-1
<400> 1473
Met Leu Ile Phe Thr Phe Ile Ser Thr Leu Leu Phe Val Phe Leu Gly
 -15
                       -10
Val Val
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<210> 1474
<211> 47
<212> PRT
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<400> 1474
Met Glu Val Leu Ser Xaa Pro Asn Ser Phe Gln Thr Gln Ala Leu Trp
    -35
                   -30
                                               -25
Asp Ser Leu His Ser Pro Gly Val Pro Gly Ser Gly Leu Cys Ser Met
                       -15
                                          -10
Ala Ala Val Gln Ala Gly Asn Gln Ala Ile Tyr Ser Ala Ser Gly
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632
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 <400> 1475
 Met Gln Ala Thr Ala Ser Gln Pro Ile His Phe Phe Xaa Ser Ser Pro
     -40
                          -35
                                   -30
 Gln Ala Pro Arg His His Ser Gly His Pro Val Pro Leu Leu Thr
                                         -15
 Gln Ala Gly Phe Pro Arg Arg Gly Glu Ala Ala Pro Pro Leu Leu
                   - 5
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Met Arg Gly Xaa Asn Xaa Val Phe Arg Val Phe Ser Glu Ser Leu Lys
     -25
                                    -20
                                                     -15
Gly Leu Cys Thr Phe Thr Leu Asn Leu Thr Ala Val Arg Thr Ile Xaa
               -10
                                 -5
Leu Asp
<210> 1477
<211> 40
<212> PRT
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<221> SIGNAL
<222> -32..-1
<400> 1477
Met Gly Arg Ile Ile Pro Met Val Glu Lys Ala Asp Thr Ala Gln Lys
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                                     -20
Phe Gln Gly Arg Leu Thr Ile Ser Thr Xaa Leu Ser Thr Ser Xaa Xaa
                      -10
Phe Met Glu Leu Ser Ser Leu Arg
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<210> 1478
<211> 112
<212> PRT
<213> Homo sapiens
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<221> SIGNAL
<222> -67..-1
<400> 1478
Met Asn Leu Val Ile Cys Val Leu Leu Leu Ser Ile Trp Lys Asn Asn
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-60 -65 -55 Cys Met Thr Thr Asn Gln Thr Asn Gly Ser Ser Thr Thr Gly Asp Lys -45 -40 Pro Val Glu Ser Met Gln Thr Lys Leu Asn Tyr Leu Arg Arg Asn Leu -30 -25 Leu Ile Leu Val Gly Ile Ile Ile Met Val Phe Val Phe Ile Cys Phe -15 -10 - 5 Cys Tyr Leu His Tyr Asn Cys Leu Ser Asp Asp Ala Ser Lys Ala Gly 10 Met Val Lys Lys Gly Ile Ala Ala Lys Ser Ser Lys Thr Ser Phe 20 25 Ser Glu Ala Lys Thr Ala Ser Gln Cys Ser Ser Glu Thr Gln Thr Gly 35 40 <210> 1479 <211> 35 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -28..-1 <400> 1479 Met Gln Ile Ser Ala Ala Ser Leu Asn Phe Ser Ser Lys Asn Gly Ile -25 -20 Phe Phe Ser Leu Thr Leu Ser Gly Cys Lys Phe Ser Lys Leu Leu Cys -5 -10 1 Pro Phe Gly <210> 1480 <211> 72 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -52..-1 <400> 1480 Met Ile Phe Glu Pro Val Val Leu Lys Pro Val Phe Leu Asn Ile Phe -50 -45 Phe Phe Ser His His Val Phe Thr Val Phe Phe Ser Gly Ser His Val -30 Asp Ile Leu Ser Arg Thr Val Leu Val Trp Asp Cys Leu Leu Pro Pro -20 -15 -10 Pro Ser Phe Phe Leu Leu Leu Ser Ser Ser Xaa Ser Xaa Leu Leu 1 Leu Xaa Xaa Ser Ser Ser Ser Arg <210> 1481 <211> 20 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -14..-1 <400> 1481 Met Leu Val Pro Leu Leu Ser His Leu Leu Phe Lys Phe Thr Trp Pro

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                                                     PCT/IB99/00712
                                634
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          -10
                                                 1
Lys Xaa Ser Gln
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Met Asp Arg Asn Pro Ser Pro Pro Pro Pro Gly Arg Asp Lys Glu Glu
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                             -40
Glu Glu Glu Val Ala Gly Gly Asp Cys Ile Gly Ser Thr Val Tyr Ser
          -30
                          -25
Lys His Trp Leu Phe Gly Val Leu Ser Gly Leu Xaa Gln Xaa Val Ser
     -15 -10
                                -5
Pro Gly Lys His Gln Asn Leu Gly Ser Xaa Xaa Glu Glu Gln Leu Thr
 1
       5
                                10
Glu Leu Asp Glu Arg Asn
             20
<210> 1483
<211> 37
<212> PRT
<213> Homo sapiens
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<222> -23..-1
<400> 1483
Met Lys Leu Ser Leu Ala Gly Tyr Glu Ile Leu Gly Cys His Phe Phe
    -20 -15
Ser Leu Ala Leu Leu Asn Thr Gly Pro Gln Tyr Leu Leu Ala Tyr Arg
                               5
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-5 1
Val Ser Ala Glu Arg
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<210> 1484
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<213> Homo sapiens

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<212> PRT

<210> 1485 <211> 126 <212> PRT <213> Homo sapiens

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Met Ala Pro Lys Gly Lys Val Gly Thr Arg Gly Lys Lys Gln Ile Phe
             -45
                        -40
Glu Glu Asn Arg Glu Thr Leu Lys Phe Tyr Leu Arg Ile Ile Leu Gly
           -30
                               -25
                                                   -20
Ala Asn Ala Ile Tyr Cys Leu Val Thr Leu Val Phe Phe Tyr Ser Ser
                           -10
Ala Ser Phe Trp Ala Trp Leu Ala Leu Gly Phe Ser Leu Ala Val Tyr
                                       10
Gly Ala Ser Tyr His Ser Met Ser Ser Met Ala Arg Ala Ala Phe Ser
               20
Glu Asp Gly Ala Leu Met Asp Gly Gly Met Asp Leu Asn Met Glu Gln
           35
                              40
Gly Met Ala Glu His Leu Lys Asp Val Ile Leu Leu Thr Ala Ile Val
                          55
Gln Val Leu Ser Cys Phe Ser Leu Tyr Val Trp Ser Phe Trp
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<221> SIGNAL
<222> -29..-1
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Met Ala Ala Val Thr Val Thr Val Thr Lys Thr Ala Ala Ala Ala Thr
             -25
                                   -20
Ala Phe Asn Lys Ala Val Trp Phe Thr Pro Cys Ser Cys Gln Glu Val
     -10
                               -5
Ser Ser Arg Leu Pro Ala Arg Thr Ala Ala Thr Arg Gln Asp Arg Ala
                10
Asp Lys Lys Glu Arg Pro Cys
<210> 1487
<211> 34
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<222> -19..-1
<400> 1487
Met Leu Gln Phe Glu Lys Pro Gly Ser Ala Ile Cys Leu Trp His Ser
               -15
                                  -10
Thr Leu Gly Gly Xaa Gly Gly Arg Glu Ile Xaa Ser Leu Arg Pro Ala
Cys Gly
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<212> PRT
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<213> Homo sapiens

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Lys Ser Phe Leu Val Lys Ala Ser
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Met Lys Leu Gln Thr Leu Ala Phe Trp Ser Ala Tyr Val Pro Cys Gln
        -10
                           -5
Thr Gln Asp Arg Asp Ala Pro Arg Leu Thr Leu Glu Gln Ile Asp Leu
          5
                              10
Ile Arg Arg Met Cys Ala Ser Tyr Ser Glu Leu Glu Leu Val Thr Ser
                25
                                            30
Ala Lys Ala Leu Asn Asp Thr Gln Lys Leu Ala Cys Leu Ile Gly Val
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                                         45
Glu Gly Gly His Ser Leu Asp Asn Ser Leu Ser Arg
<210> 1490
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Met Pro Ala Cys Leu Ser Ser Phe Val Ile Pro Ser Leu Leu Ser Pro
             -10
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Ser Ser Pro Pro Ser Ile Gly
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<210> 1491
<211> 34
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<222> -16..-1
<400> 1491
Met Val Val Ser Phe Ala Gly Ser Cys Thr Ile Leu Gly Ala Ser Ser
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                              -5
His Ser Phe Pro Ile Glu Val Ser Leu Phe Pro Val Asp Cys Gly Phe
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Leu Leu
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<211> 32
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Met Cys Cys Pro Gly Trp Asn Ala Val Ser Gln Ser Trp Leu Ala Ala
-20 -15
                         -10
Pro Ser Thr Ser Trp Val Gln Glu Ile Leu Val Leu Gln Pro Pro Gly
                           5
<210> 1493
<211> 69
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Met Gly Glu Ile Lys Val Ser Pro Asp Tyr Asn Trp Phe Arg Gly Thr
           -50
                             -45
Val Pro Leu Lys Xaa Xaa Xaa Val Asp Asp Asp Ser Lys Ile Trp
          -35
                             -30
                                               -25
Ser Xaa Tyr Asp Ala Gly Pro Arg Ser Ile Arg Cys Pro Leu Ile Phe
    -20
               -15
                                 -10
Leu Xaa Xaa Val Ser Gly Thr Xaa Asp Val Phe Phe Arg Gln Ile Leu
 -5
                     1
Ala Leu Thr Gly Trp
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<211> 45
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Met Asp Ala Ser His Ser His Leu Ser Leu Val Gly His Ser Arg Ala
              -10
                                 -5
Cys Gly Val Thr Ser Arg Pro His Ala Arg His Arg Gly Arg Cys Leu
1 5
                              10
Gly Pro Cys Ser Arg Ser Gly Pro Arg Leu Cys Ser Ala
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                                      -60
Gln Asp Cys Ile Ile Gln Gly Leu Thr Glu Thr Gly Thr Asp Leu Glu
                 -50 -45
Ala Val Ala Lys Phe Leu Asp Ala Ser Gly Ala Lys Leu Asp Tyr Arg
                                    -25
             -35 -30
Arg Tyr Ala Glu Thr Leu Phe Asp Ile Leu Val Ala Gly Xaa Met Leu
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His Gln Arg Thr Leu Ile Ser Leu Pro Pro
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                    -5
Leu Asp Ser Pro Ala
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Ser Gly Thr Pro Leu Thr Glu Glu Lys Glu Lys Ile Val Trp Val Arq Phe Glu Asn Ala Asp Leu Asn Asp Thr Ser Arg Asn Leu Glu Phe His Glu Ile His Ser Thr Gly Ser Glu Pro Pro Leu Leu Ile Met Ile Gly Tyr Ser Asp Gly Met Gln Val Trp Ser Ile Pro Ile Xaa Gly Glu Xaa 105 Lys Ser Ser Ser Leu Phe Asp Met Ala Gln Phe Glu Arg Leu Glu Ser 120 Cys Leu Leu His 130 <210> 1519 <211> 46 <212> PRT <213> Homo sapiens <400> 1519 Met Pro Val Thr Arg Ala Ser Gln Pro Arg Lys Pro Ser Ser Ala Gln 10 Gln Gln Lys Ala Ala Leu Leu Xaa Asn Asn Thr Ala Leu Gln Ser Val 25 Ser Leu Arg Ser Lys Thr Thr Ile Arg Glu Arg Pro Ser Ser <210> 1520 <211> 41 <212> PRT <213> Homo sapiens <400> 1520 Met Asn Gly Phe Gly Arg Leu Glu His Phe Ser Gly Ala Val Tyr Glu 10 Gly Gln Phe Lys Asp Asn Met Phe His Gly Leu Gly Thr Tyr Thr Phe 20 Pro Asn Gly Ala Lys Tyr Thr Gly Ile 35 <210> 1521 <211> 131 <212> PRT <213> Homo sapiens <400> 1521 Met Ala Lys Ile Ala Lys Thr His Glu Asp Ile Glu Ala Gln Ile Arg Glu Ile Gln Gly Lys Lys Ala Ala Leu Asp Glu Ala Gln Gly Val Gly 20 Leu Asp Ser Thr Gly Tyr Tyr Asp Gln Glu Ile Tyr Gly Gly Ser Asp Ser Arg Phe Ala Gly Tyr Val Thr Ser Ile Ala Ala Thr Glu Leu Glu 55 Asp Asp Asp Asp Tyr Ser Ser Ser Thr Ser Leu Leu Gly Gln Lys 75 Lys Pro Gly Tyr His Ala Pro Val Ala Leu Leu Asn Asp Ile Pro Gln Ser Thr Glu Gln Tyr Asp Pro Phe Ala Glu His Arg Pro Pro Lys Ile 100 105 110 Ala Asp Arg Glu Asp Glu Tyr Lys Lys His Arg Arg Thr Met Ile Ile 115 120 . 125 Ser Gln Ser 130 <210> 1522 <211> 82

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Phe Ser Phe Leu Ser Phe Phe

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Pro Ile Pro His Ile Gly Pro Asp Tyr Ile Pro Thr Glu Glu Glu Arg
                                25
Arg Val Phe Ala Glu Cys Asn Asp Glu Ser Phe Trp Phe Arg Ser Val
                           40
                                               4.5
Pro Leu Ala Ala Thr Ser Met Leu Ile Thr Gln Gly Leu Ile Ser Lys
Gly Ile Leu Ser Ser His Pro Lys Tyr Gly Ser Ile Pro Lys Leu Ile
                    70
Leu Ala Cys Ile Met Gly Tyr Phe Ala Gly Lys Leu Ser Tyr Val Lys
                                   90
Thr Cys Gln Glu Lys Phe Lys Lys Leu Glu Asn Ser Pro Leu Gly Glu
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Ala Leu Arg Ser Gly Gln Ala Arg Arg Ser Ser Pro Pro
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Leu Leu Xaa Ile His Leu Xaa Xaa Ile Ser Cys Leu Xaa Asn Asn Lys
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Xaa Thr Leu
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Gln Ala Arg Glu Lys Leu Ala Leu Tyr Val Tyr Glu Tyr Leu Leu His
           20
                               25
Val Gly Ala Gln Lys Ser Ala Gln Thr Phe Leu Ser Glu Ile Arg Trp
                           40
Glu Lys Asn Ile Thr Leu Gly Glu Pro Pro Gly Phe Leu His Ser Trp
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Trp Cys Val Phe Trp Asp Leu Tyr Cys Ala Ala Pro Glu Arg Arg Glu
                  70
Thr Cys Glu His Ser Ser Glu Ala Lys Ala Phe His Asp Tyr Ser Ala
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Ala Ala Ala Pro Ser Pro Val Leu Gly Asn Ile Pro Pro Gly Asp
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649 20 25 Tyr Thr Glu Ser Tyr Ile Ser Thr Ile Gly Val Asp Phe Lys Ile Arg 40 Thr Ile Glu Leu Asp Gly Lys Thr Ile Lys Leu Gln Ile Trp Asp Thr 55 Ala Gly Gln Glu Arg Phe Arg Thr Ile Thr Ser Ser Tyr Tyr Arg Gly 75 Ala His Gly Ile Ile Val Val Tyr Asp Val Thr Asp Gln Glu Ser Tyr 90 Ala Xaa Val Lys Gln Trp Leu Gln Glu Ile Asp 100 <210> 1534 <211> 31 <212> PRT <213> Homo sapiens <400> 1534 Met Asn Ser Lys Ala Xaa Lys Ser Ser Thr Ala Asn Gln Gly Asp Gly 10 Asp Glu Glu Xaa Val Gly Arg Xaa Glu Xaa Ser Val Gly Glu Phe 25 <210> 1535 <211> 48 <212> PRT <213> Homo sapiens <400> 1535 Met Leu Tyr Ser Thr Leu Lys His Thr Leu Gln Tyr Val Ile Ile Asn 10 Cys Gly His His Ala Val Gln Lys Ile Ser Lys Thr Tyr Ser Ser Cys 25 Leu Thr Glu Xaa Leu Tyr Pro Leu Pro Asn Ile Ser Pro Ile Pro Pro <210> 1536 <211> 94 <212> PRT <213> Homo sapiens <400> 1536 Met Asn Asp Glu Val Asn Pro Arg Arg Val Leu Glu Leu Met Gly Ser 10 Glu Val Thr Gln Ile Ala Cys Gly Arg Gln His Thr Leu Xaa Phe Val 20 Pro Ser Ser Gly Leu Ile Tyr Ala Phe Gly Cys Gly Ala Arg Gly Gln 40 Leu Gly Thr Gly His Thr Cys Asn Val Lys Cys Pro Ser Pro Val Lys 55 Gly Tyr Trp Ala Ala His Ser Gly Gln Leu Ser Ala Arg Ala Asp Arg Phe Lys Tyr His Ile Val Lys Gln Ile Phe Ser Gly Gly Asp <210> 1537 <211> 22 <212> PRT <213> Homo sapiens <400> 1537 Met Pro Val Arg Thr Ile Thr Arg Gln Asn Gly Ser Val Pro Trp Gly 5 10 Pro Asn His Cys Asp Lys

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Val Lys Glu Val Glu Asp Asp Asp Asp Glu Pro Ile Phe Val Gly

Glu Ile Ser Ser Ser Lys Pro Ala Ile Ser Asn Ile Leu Asn Arg Val

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Gly Ile Thr Ala Ala Phe Lys Pro Thr Ser Gln His Tyr Thr 85

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His Leu Asp Ala Ile Arg Lys Asp Met Val Ile Leu Glu Lys Ser Glu 25

Phe Ala Asn Leu Arg Ala Glu Asn Glu Lys Met Lys Ile Glu Leu Asp

Gln Val Lys Gln Gln Leu Met His Glu Thr Ser Xaa Ile Arg Ala Asp 5.0 55

Asn Lys Leu

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Met Lys Phe Gly Asn Val Arg Met Xaa Ser Ile Gln Ile Phe Ile Val 10 Ser Ile Trp Ser Phe Phe Leu Phe Tyr Gly Lys Tyr Thr Tyr Ile Arg 20

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Leu Ile Leu Ser Gln Gly

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Ser Ser Ser Leu Ser Asn Thr Ala Arg Asn Leu Tyr Ile Cys Leu Phe 25

His Ile Thr

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Met Gly Arg Trp Ala Leu Asp Val Ala Phe Leu Trp Lys Ala Val Leu

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651

Thr Leu Gly Leu Val Leu Leu Tyr Tyr Cys Phe Ser

<210> 1543

<211> 128

<212> PRT

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Ile Gln Ala Cys Lys Glu Leu Ala Gln Thr Thr Arg Thr Ala Tyr Gly
35 40 45

Pro Asn Gly Met Asn Lys Met Val Ile Asn His Leu Glu Lys Leu Phe 50 60

Val Thr Asn Asp Ala Ala Thr Ile Leu Arg Glu Leu Glu Val Gln His 65 70 75 80

Pro Ala Ala Lys Met Ile Val Met Ala Ser His Met Gln Glu Gln Glu
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Val Gly Asp Gly Thr Asn Phe Val Leu Val Phe Ala Gly Ala Leu Leu 100 105 110

Glu Leu Ala Glu Glu Leu Leu Arg Ile Gly Leu Ser Val Ser Glu Val 115 120 125

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Leu

<210> 1545

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Pro Leu Ala Ala Thr Ser Ser Phe Ser Ser Pro Asn Val Ser Ser Met
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Pro Val Arg Pro

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<210> 1546

<211> 50

<212> PRT

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Xaa Leu Lys Leu Ser Cys Gln Pro Met Leu Ser Leu Asp Asp Phe Gln

WO 99/53051 652 35 40 45 Leu Gln 50 <210> 1547 <211> 139 <212> PRT <213> Homo sapiens <400> 1547 Met Pro Thr Val Ser Val Lys Arg Asp Leu Leu Phe Gln Ala Leu Gly 10 Arg Thr Tyr Thr Asp Glu Glu Phe Asp Glu Leu Cys Phe Glu Phe Gly 20 Leu Glu Leu Asp Glu Ile Thr Ser Glu Lys Glu Ile Ile Ser Lys Glu 45 Gln Gly Asn Val Lys Ala Ala Gly Ala Ser Asp Val Val Leu Tyr Lys 55 Ile Asp Val Pro Ala Asn Arg Tyr Asp Leu Leu Cys Leu Glu Gly Leu 70 75 Val Arg Gly Leu Gln Val Phe Lys Glu Arg Ile Lys Ala Pro Val Tyr 90 Lys Arg Val Met Pro Asp Gly Lys Ile Gln Lys Leu Ile Ile Thr Glu 105 Glu Thr Ala Lys Ile Arg Pro Phe Ala Val Ala Ala Val Leu Arg Asn 120 Ile Lys Phe Thr Lys Asp Arg Tyr Asp Ser Phe 135 <210> 1548 <211> 71 <212> PRT <213> Homo sapiens <400> 1548 Met Phe Ser Glu Glu Leu Trp Leu Glu Asn Glu Lys Lys Cys Ala Val Val Arg Lys Ser Lys Gln Gly Arg Lys Arg Gln Glu Leu Leu Ala Val 20 Ala Phe Gly Val Lys Val His Thr Phe Arg Gly Pro His Trp Cys Glu 40 Tyr Cys Ala Asn Phe Met Trp Gly Leu Ile Ala Gln Gly Val Arg Cys 55 Ser Asp Cys Gly Leu Asn Val <210> 1549 <211> 29 <212> PRT <213> Homo sapiens <400> 1549 Met Val Val Phe Met Thr Tyr Val Thr Leu Pro Phe Phe Ser Phe 1 5 10 Ile Ser Ser Leu Leu Ser Phe Phe Phe Leu Phe Leu Leu

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25

30

Leu Leu Pro Pro Gly Trp Leu Asp

<210> 1555

<211> 95

<212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

<222> -18..-1

<400> 1555

Met Lys Leu Met Val Leu Met Leu Ala Ala Leu Leu Leu His Cys
-15 -10 -5

Tyr Ala Asp Ser Gly Cys Lys Leu Leu Glu Asp Met Val Glu Lys Thr 1 5 10

Ile Asn Ser Asp Ile Ser Ile Pro Glu Tyr Lys Glu Leu Leu Gln Glu
15 20 25 30

Phe Ile Asp Ser Asp Ala Ala Ala Glu Ala Met Gly Lys Phe Lys Gln
35 40 45

Cys Phe Leu Asn Gln Ser His Arg Thr Leu Lys Asn Phe Gly Leu Met 50 55 60

Met His Thr Val Tyr Asp Ser Ile Trp Cys Asn Met Lys Ser Asn 65 70 75

<210> 1556

<211> 95

<212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

<222> -31..-1

<400> 1556

Met Val Ala Met Ala Ala Gly Pro Ser Gly Cys Leu Val Pro Ala Phe
-30 -25 -20

Gly Leu Arg Leu Leu Ala Thr Val Leu Gln Ala Val Ser Ala Phe
-15
-10
-5

Gly Ala Glu Phe Ser Ser Glu Ala Cys Arg Glu Leu Gly Phe Ser Ser

5 10 15

Asn Leu Leu Cys Ser Ser Cys Asp Leu Leu Gly Gln Phe Asn Leu Leu 20 25 30

Gln Leu Asp Pro Asp Cys Arg Gly Cys Cys Gln Glu Glu Ala Gln Phe 35 40 45

Glu Thr Lys Lys Leu Tyr Ala Gly Ala Ile Leu Glu Val Cys Gly
50 60

<210> 1557

<211> 101

<212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

<222> -32..-1

<400> 1557

Met Phe Ala Pro Ala Val Met Arg Ala Phe Arg Lys Asn Lys Thr Leu
-30 -25 -20

Gly Tyr Gly Val Pro Met Leu Leu Ile Val Gly Gly Ser Phe Gly
-15
-10

655 Leu Arg Glu Phe Ser Gln Ile Arg Tyr Asp Ala Val Lys Ser Lys Met 10 Asp Pro Glu Leu Glu Lys Lys Leu Lys Glu Asn Lys Ile Ser Leu Glu 25 Ser Glu Tyr Glu Lys Ile Lys Asp Ser Lys Phe Asp Asp Trp Lys Asn 40 Ile Arg Gly Pro Arg Pro Trp Glu Asp Pro Asp Leu Leu Gln Gly Lys 55 Lys Ser Arg Lys Pro 65 <210> 1558 <211> 115 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -51..-1 <400> 1558 Met Gln Ala Gln Ala Pro Val Val Val Thr Gln Pro Gly Val Gly -50 -45 Pro Gly Pro Ala Pro Gln Asn Ser Asn Trp Gln Thr Gly Met Cys Asp -30 -25 Cys Phe Ser Asp Cys Gly Val Cys Leu Cys Gly Thr Phe Cys Phe Pro -15 -10 Cys Leu Gly Cys Gln Val Ala Ala Asp Met Asn Glu Cys Cys Leu Cys 10 Gly Thr Ser Val Ala Met Arg Thr Leu Tyr Arg Thr Arg Tyr Gly Ile 20 Pro Gly Ser Ile Cys Asp Asp Tyr Met Ala Thr Leu Cys Cys Pro His 35 40 Cys Thr Leu Cys Gln Ile Lys Arg Asp Ile Asn Arg Arg Ala Met 55. Arg Thr Phe <210> 1559 <211> 126 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -24..-1 <400> 1559 Met Asp Lys Ser Leu Leu Leu Glu Leu Pro Ile Leu Leu Cys Cys Phe -20 -15 -10 Arg Ala Leu Ser Gly Ser Leu Ser Met Arg Asn Asp Ala Val Asn Glu -5 Ile Val Ala Val Lys Asn Asn Phe Pro Val Ile Glu Ile Val Arg Cys 15 Arg Met Cys His Leu Gln Phe Pro Gly Glu Lys Cys Ser Arg Gly Arg 25 30 35 Gly Ile Cys Thr Ala Thr Thr Glu Glu Ala Cys Met Val Gly Arg Met 45 50 Phe Lys Arg Asp Gly Asn Pro Trp Leu Thr Phe Met Gly Cys Leu Lys 65 Asn Cys Ala Asp Val Lys Gly Ile Arg Trp Ser Val Tyr Leu Val Asn Phe Arg Cys Xaa Arg Ser His Asp Leu Cys Asn Glu Asp Leu 95

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<210> 1560
 <211> 102
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SIGNAL
 <222> -16..-1
 <400> 1560
 Met Asp Leu Leu Trp Ile Leu Pro Ser Leu Trp Leu Leu Leu Gly
  -15
                        -10
 Gly Pro Ala Cys Leu Lys Thr Gln Glu His Pro Ser Cys Pro Gly Pro
                                   10
 Arg Glu Leu Glu Ala Ser Lys Val Val Leu Leu Pro Ser Cys Pro Gly
                                25
 Ala Pro Gly Ser Pro Gly Glu Lys Gly Ala Pro Gly Pro Gln Gly Pro
 Pro Gly Pro Pro Gly Lys Met Gly Pro Lys Gly Glu Pro Gly Asp Pro
                                           60
 Val Asn Leu Leu Arg Cys Gln Glu Gly Pro Arg Asn Cys Arg Glu Leu
                   70
                                       75
 Leu Ser Arg Ala Pro Pro
 <210> 1561
 <211> 60
 <212> PRT
 <213> Homo sapiens
<220>
<221> SIGNAL
<222> -19..-1
<400> 1561
Met Glu Ser Pro Ser Xaa Ser Ala Val Val Leu Pro Ser Thr Pro Gln
             -15
                                 -10
Ala Ser Ala Asn Pro Ser Ser Pro Tyr Thr Asn Ser Ser Arg Lys Gln
                           5
                                              10
Pro Met Ser Ala Thr Leu Arg Glu Arg Leu Arg Lys Thr Arg Phe Ser
                    20
Phe Asn Ser Ser Xaa Asn Val Val Asn Val Leu Lys
                   35
<210> 1562
<211> 97
<212> PRT
<213> Homo sapiens
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<221> SIGNAL
<222> -16..-1
<400> 1562
Met Asp Phe Trp Leu Trp Pro Leu Tyr Phe Leu Pro Val Ser Gly Ala
  -15
                       -10
Leu Arg Ile Leu Pro Glu Val Lys Val Glu Gly Glu Leu Gly Gly Ser
                                   10
Val Thr Ile Lys Cys Pro Leu Pro Glu Met His Val Arg Ile Tyr Leu
          20
                               25
Cys Arg Glu Met Ala Gly Ser Gly Thr Cys Gly Thr Val Val Ser Thr
                           40
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657 Thr Asn Phe Ile Xaa Ala Glu Tyr Lys Gly Arg Val Thr Leu Arg Ala 55 60 Ile Pro Thr Gln Glu Ser Val Pro Ser Gly Gly Asn Thr Ala Asp Arg 70 Lys <210> 1563 <211> 82 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -34..-1 <400> 1563 Met Val Gly Glu Ala Gly Arg Asp Leu Arg Arg Arg Ala Val Ala -30 -25 Val Thr Ala Glu Lys Met Ala Val Leu Ala Pro Leu Ile Ala Leu Val -15 -10 Tyr Ser Xaa Pro Arg Leu Ser Arg Trp Leu Ala Gln Pro Tyr Tyr Leu 1 5 Leu Ser Xaa Leu Leu Ser Xaa Ala Phe Leu Leu Val Arg Xaa Leu Pro 20 25 Pro Leu Cys His Gly Leu Pro Thr Gln Arg Glu Xaa Gly Asn Pro Ser 35 40 Xaa Xaa <210> 1564 <211> 48 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -17..-1 <400> 1564 Met Ala Gln Leu Trp Leu Ser Cys Phe Leu Leu Pro Ala Leu Val Val -15 -10 - 5 Ser Val Ala Ala Asn Val Ala Pro Xaa Phe Leu Ala Asn Met Thr Ser 5 10 Val Ile Leu Pro Glu Asp Cys Leu Trp Val Pro Arg Pro Ser Gly Trp 20 <210> 1565 <211> 105 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -34..-1 <400> 1565 Met Val Gly Glu Ala Gly Arg Asp Leu Arg Arg Arg Ala Val Ala -30 -25 Val Thr Ala Glu Lys Met Ala Val Leu Ala Pro Leu Ile Ala Leu Val -15 -10 Tyr Ser Val Pro Arg Leu Ser Arg Trp Leu Ala Gln Pro Tyr Tyr Leu 5 10 Leu Ser Ala Leu Leu Ser Ala Ala Phe Leu Leu Val Arg Lys Leu Pro

25

Pro Leu Cys His Gly Leu Pro Thr Gln Arg Glu Xaa Gly Asn Pro Cys
35 40 45

Asp Phe Asp Trp Arg Glu Val Glu Ile Leu Met Phe Leu Ser Ala Ile
50 55 60

Val Met Met Lys Asn Arg Arg Ser Ser
65 70

<210> 1566 <211> 88 <212> PRT <213> Homo sapiens

<221> SIGNAL <222> -19..-1

<400> 1566

Met Val Ala Trp Arg Ser Ala Phe Leu Val Cys Leu Ala Phe Ser Leu
-15 -10 -5

Ala Thr Leu Val Gln Arg Gly Ser Gly Asp Phe Asp Asp Phe Asn Leu
1 5 10

Glu Asp Ala Val Lys Glu Thr Ser Ser Val Lys Gln Pro Trp Asp His
15 20 25

Thr Thr Thr Thr Thr Asn Arg Pro Gly Thr Thr Arg Ala Pro Ala
30 35 40 45
Lys Pro Pro Gly Ser Gly Leu Asp Leu Ala Asp Ala Leu Asp Asp Cla

Lys Pro Pro Gly Ser Gly Leu Asp Leu Ala Asp Ala Leu Asp Asp Gln 50 55 60

Asp Asp Gly Arg Arg Asn Arg Val

<210> 1567

<211> 119

<212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

<222> -53..-1

<400> 1567

Met Ala Asp Pro Asp Pro Arg Tyr Pro Arg Ser Ser Ile Glu Asp Asp
-50
-45
-40

Phe Asn Tyr Gly Ser Ser Val Ala Ser Ala Thr Val His Ile Arg Met
-35
-30
-25

Ala Phe Leu Arg Lys Val Tyr Ser Ile Leu Ser Leu Gln Val Leu Leu
-20 -15 -10

Thr Thr Val Thr Ser Thr Val Phe Leu Tyr Phe Glu Ser Val Arg Thr
-5 1 5 10

Phe Val His Glu Ser Pro Ala Leu Ile Leu Leu Phe Ala Leu Gly Ser

Leu Gly Leu Ile Phe Ala Leu Xaa Leu Asn Arg His Lys Tyr Pro Leu 30 35 40

Asn Leu Tyr Leu Leu Phe Gly Phe Thr Leu Leu Glu Ala Leu Thr Val 45 50 55

Ala Val Val Thr Val Leu 60 65

<210> 1568

<211> 104

<212> PRT

<213> Homo sapiens

<220>

WO 99/53051 659 <221> SIGNAL <222> -55..-1 <400> 1568 Met Ser Ser Gln Lys Gly Asn Val Ala Arg Ser Arg Pro Gln Lys His -50 -45 Gln Asn Thr Phe Ser Phe Lys Asn Asp Lys Phe Asp Lys Ser Val Gln -35 -30 Thr Lys Ser Met Asn Asn Leu Ser Phe Ser Glu Leu Cys Cys Leu Phe -20 -10 Cys Cys Pro Pro Cys Pro Gly Lys Ile Ala Ser Lys Leu Ala Phe Leu 1 Pro Pro Asp Pro Thr Tyr Thr Leu Met Cys Asp Glu Ser Gly Ser Val 10 15 Gly Leu Tyr Ile Cys Leu Asn Glu Gln Thr Gly Ser Ile Leu Leu Glu 30 Lys Lys Met Leu Leu Ser Val Ser 45 <210> 1569 <211> 126 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -62..-1 <400> 1569 Met Arg Asn Lys Lys Ile Leu Lys Glu Asp Glu Leu Leu Ser Glu Thr -60 -55 -50 Gln Gln Ala Ala Phe His Gln Ile Ala Met Glu Pro Phe Glu Ile Asn -40 -35 Val Pro Lys Pro Lys Arg Arg Asn Gly Val Asn Phe Ser Leu Ala Val -25 -20 Val Val Ile Tyr Leu Ile Leu Leu Thr Ala Gly Ala Gly Leu Leu Val -10 -5 Val Gln Val Leu Asn Leu Gln Ala Arg Leu Arg Val Leu Glu Met Tyr 10 Phe Leu Asn Asp Thr Leu Ala Ala Glu Asp Ser Pro Ser Phe Ser Leu 25 30 Leu Gln Ser Ala His Pro Gly Glu His Leu Ala Gln Gly Ala Ser Arg 40 45 Leu Gln Ser Cys Arg Pro Asn Ser Pro Gly Ser Ala Ser Xaa <210> 1570 <211> 134 <212> PRT

<213> Homo sapiens <220> <221> SIGNAL <222> -56..-1 <400> 1570 Met Ala Pro Thr Lys Pro Ser Phe Gln Gln Asp Pro Ser Arg Arg Glu -50 Arg Leu Gln Ala Leu Arg Lys Glu Lys Ser Arg Asp Ala Ala Arg Ser -35 -30 Arg Arg Gly Lys Glu Asn Phe Glu Phe Tyr Glu Leu Ala Lys Leu Leu -20 -15 Pro Leu Pro Ala Ala Ile Thr Ser Gln Leu Asp Lys Ala Ser Ile Ile

-5 1 5 Arg Leu Thr Ile Ser Tyr Leu Lys Met Arg Asp Phe Ala Asn Gln Gly 15 20 Asp Pro Pro Trp Asn Leu Arg Met Glu Gly Pro Pro Pro Asn Thr Ser 30 35 Val Lys Val Ile Gly Ala Gln Arg Arg Arg Ser Pro Ser Ala Leu Ala 45 50 Ile Glu Val Phe Glu Ala His Leu Gly Ser His Ile Leu Gln Ser Trp 65 Met Ala Leu Tyr Leu His 75 <210> 1571 <211> 28 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -20..-1 <400> 1571 Met Glu Glu Leu Gln Asp Gln Ala Leu Leu Ser Val Cys Ser Thr Asp -20 -15 -10 -5 Val Thr Thr Ala His Ala Trp Leu Thr Val Leu Val 1 <210> 1572 <211> 28 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -20..-1 <400> 1572 Met Glu Glu Leu Gln Asp Gln Ala Leu Leu Ser Val Cys Ser Thr Asp -20 -15 -10 Val Thr Thr Ala His Ala Trp Leu Thr Val Leu Val <210> 1573 <211> 47 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -45..-1 <400> 1573 Met Val Gly Arg Val Arg Val Cys Arg Lys Tyr Pro Pro Thr Thr Leu -40 -35 Trp Glu Gly Ala Arg Gly His Arg Gln Ile Ser Val Ser Pro Trp Asn -25 -20 -15 Ile Cys Cys Ala Ala Ala Ala Ala Ala Ala Gly Ser Arg Ile -5 <210> 1574 <211> 137 <212> PRT <213> Homo sapiens

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Met Ala Thr His His Leu Gly Leu Pro Ala Ser Gln Pro Leu Pro Gly -65 -60 -55 Ile Leu Ser Arg Ala Pro Ser Leu Pro Pro Arg Ser Pro Ala Thr Arg

662 -50 -45 -40 Ser Arg Val Ser Ser Pro Trp Gly Glu Ser Ser Ser Leu Leu Phe -30 -25 Pro Asp Cys His Ile Ser Phe Pro Ala Leu Thr Gly Ser Gln Leu Leu -15 -10 Gly Asp Thr Ile Pro Arg Pro His Leu Pro Pro Thr Ala Ala Cys 1 5 <210> 1577 <211> 108 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -35..-1 <400> 1577 Met Thr Pro Ser Arg Leu Pro Trp Leu Leu Ser Trp Val Ser Ala Thr -30 -25 Ala Trp Arg Ala Ala Arg Ser Pro Leu Leu Cys His Ser Leu Arg Lys -15 -10 Thr Ser Ser Gln Gly Gly Lys Ser Glu Leu Val Lys Gln Ser Leu 1 5 10 Lys Lys Pro Lys Leu Pro Glu Gly Arg Phe Asp Ala Pro Glu Asp Ser 15 20 His Leu Glu Lys Glu Pro Leu Glu Lys Phe Pro Asp Asp Val Xaa Pro 35 40 Val Thr Lys Glu Lys Gly Gly Pro Arg Gly Pro Glu Pro Thr Arg Tyr 50 55 60 Gly Asp Trp Glu Arg Lys Gly Arg Cys Ile Asp Phe 70 <210> 1578 <211> 81 <212> PRT <213> Homo sapiens <220> <221> SIGNAL <222> -51..-1 <400> 1578 Met Glu Lys Leu Arg Arg Val Leu Ser Gly Gln Asp Asp Glu Gln -45 -40 Gly Leu Thr Ala Gln Val Leu Asp Ala Ser Ser Leu Ser Phe Asn Thr -35 -30 -25 Arg Leu Lys Trp Phe Ala Ile Cys Phe Val Cys Gly Val Phe Phe Ser -15 -10 Ile Leu Gly Thr Gly Leu Leu Trp Leu Pro Gly Gly Ile Lys Leu Phe 5 Ala Val Phe Tyr Thr Leu Gly Asn Leu Ala Ala Leu Xaa Val His Ala Xaa 30 <210> 1579 <211> 108 <212> PRT <213> Homo sapiens <220> <221> SIGNAL

<222> -93..-1

<400> 1579

Met Cys Glu Asn Gln Glu Glu Pro Ala Gly Ser Val Cys Cys His Arg
-90 -85 -80

Val Ser Ala Cys Arg Gly Gly Thr Pro Gly Gly Gly Arg Gly Gln Ser
-75 -70 -65

His Cys Arg Gly Pro Asp Trp Glu Asn Asn Asp Met Ala Gly Ala Ser
-60 -55 -50

Leu Gly Ala Arg Phe Tyr Arg Gln Ile Lys Arg His Pro Gly Ile Ile
-45 -35 -30

Pro Met Ile Gly Leu Ile Cys Leu Gly Met Gly Ser Ala Ala Leu Tyr
-25
-15

Leu Leu Arg Leu Ala Leu Arg Ser Pro Asp Val Trp Leu Gly Gln Lys
-10 -5 1

Glu Gln Pro Gly Ala Leu Glu Pro Pro Glu Pro Gln
5 10 15

<210> 1580

<211> 134

<212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

<222> -16..-1

<400> 1580

Met Ala Ala Ala Gly Leu Ala Leu Leu Xaa Arg Arg Val Ser Ser Ala
-15 -5

Leu Lys Ser Ser Arg Ser Leu Ile Thr Pro Gln Val Pro Ala Cys Thr

Gly Phe Phe Leu Ser Leu Leu Pro Lys Ser Thr Pro Asn Val Thr Ser 20 25 30

Phe His Gln Tyr Arg Leu Leu His Thr Thr Leu Ser Arg Lys Gly Leu
35 40 45

Glu Glu Phe Phe Asp Asp Pro Lys Asn Trp Gly Gln Glu Lys Val Lys
50 55 60

Ser Gly Ala Ala Trp Thr Cys Gln Gln Leu Arg Asn Lys Ser Asn Glu 65 70 75 80

Asp Leu His Lys Leu Trp Tyr Val Leu Leu Lys Glu Arg Asn Met Leu 85 90 95

Leu Thr Leu Glu Gln Glu Ala Lys Arg Gln Arg Leu Pro Met Pro Ser 100 105 110

Pro Glu Arg Leu Asp Arg 115

<210> 1581

<211> 64

<212> PRT

<213> Homo sapiens

<400> 1581

Met Asn Glu Ser Lys Pro Gly Asp Ser Gln Asn Leu Ala Cys Val Phe

1 10 15

Cys Arg Lys His Asp Asp Cys Pro Asn Lys Tyr Gly Glu Lys Lys Thr

Lys Glu Lys Trp Asn Leu Thr Val His Tyr Tyr Cys Leu Leu Met Ser 35 40 45

Ser Gly Ile Trp Gln Arg Gly Lys Glu Glu Glu Gly Val Met Val Phe
50 55 60

<210> 1582

<211> 79

664 <212> PRT <213> Homo sapiens <400> 1582 Met Ala Val Ala Arg Ala Gly Val Leu Gly Val Gln Trp Leu Gln Arg 10 Ala Ser Arg Asn Val Met Pro Leu Gly Ala Arg Thr Ala Ser His Met 20 25 Thr Lys Asp Met Phe Pro Gly Pro Tyr Pro Arg Thr Pro Glu Glu Arg 40 Ala Ala Ala Lys Lys Tyr Asn Met Arg Val Glu Asp Tyr Glu Pro 55 Tyr Pro Asp Asp Gly Met Gly Tyr Gly Asp Leu Phe Leu Xaa Val <210> 1583 <211> 66 <212> PRT <213> Homo sapiens <400> 1583 Met Glu Val Asp Ala Pro Gly Val Asp Gly Arg Asp Gly Leu Arg Glu 10 Arg Arg Gly Phe Ser Glu Gly Gly Arg Gln Asn Phe Asp Val Arg Pro 20 25 Gln Ser Gly Ala Asn Gly Leu Pro Lys His Ser Tyr Trp Leu Asp Leu 35 40 45 Trp Leu Phe Ile Leu Phe Asp Val Val Val Phe Leu Phe Val Tyr Phe 55 Leu Pro 65 <210> 1584 <211> 45 <212> PRT <213> Homo sapiens <400> 1584 Met Tyr Val Tyr Val Cys Val Trp Val Cys Val Tyr Thr Val Glu Ser 10 Lys Leu Glu Asn Ser Ser Ile Tyr Pro Pro Pro Ser Pro Val Glu Xaa 20 25 Lys Lys Ile Phe Thr Phe Val Thr Phe Leu Phe Pro Pro <210> 1585 <211> 25 <212> PRT <213> Homo sapiens <400> 1585 Met Gly Pro Gly Gly Ala Leu His Gly Gly Met Lys Thr Leu Leu Pro 1 5 10 Trp Thr Ala Arg Ala Ser Arg Ser Pro 20 <210> 1586 <211> 98 <212> PRT <213> Homo sapiens <400> 1586 Met Tyr Gly Lys Gly Lys Ser Asn Ser Ser Ala Val Pro Ser Asp Ser 10 Gln Ala Arg Glu Lys Leu Ala Leu Tyr Val Tyr Glu Tyr Leu Leu His

25 Val Gly Ala Gln Lys Ser Ala Gln Thr Phe Leu Ser Glu Ile Arg Trp

40

20

35

665 Glu Lys Asn Ile Thr Leu Gly Glu Pro Pro Gly Phe Leu His Ser Trp 55 Trp Cys Val Phe Trp Asp Leu Tyr Cys Ala Ala Pro Glu Arg Arg Glu 70 75 Thr Cys Glu His Ser Ser Glu Ala Lys Ala Phe His Asp Tyr Val Xaa 90 Asn Ile <210> 1587 <211> 50 <212> PRT <213> Homo sapiens <400> 1587 Met Cys Leu Leu Glu Val Pro Gly Ala Thr Lys Leu Leu Ala Ala Arg Arg Thr Leu Lys Arg Asn Gly Ile Ser Pro Pro Asn Gln Glu Gly Leu 20 Ala Leu Leu Gly Glu Leu Thr Thr His Lys Gln Met Arg Thr Lys 40 Thr Glu 50 <210> 1588 <211> 32 <212> PRT <213> Homo sapiens <400> 1588 Met Asn Arg Thr Ala Met Arg Ala Ser Gln Lys Asp Phe Glu Asn Ser 5 10 Xaa Asn Gln Val Lys Leu Leu Lys Lys Asp Pro Gly Asn Glu Xaa Ser 25 <210> 1589 <211> 58 <212> PRT <213> Homo sapiens <400> 1589 Met Ala Ser Ser Gly Ala Gly Asp Pro Leu Asp Ser Lys Arg Gly Glu 1 10 Ala Pro Phe Ala Gln Arg Ile Asp Pro Thr Arg Glu Lys Leu Thr Pro 25 Glu Gln Leu His Ser Met Arg Gln Ala Glu Leu Pro Ser Gly Arg Arg 40 Ser Tyr His Gly Gly Glu Pro Gly Thr Ser <210> 1590 <211> 98 <212> PRT <213> Homo sapiens <400> 1590 Met Ser Ser Asp Asp Lys Ser Lys Ser Asp Asp Pro Lys Thr Glu Pro 1 10 Lys Asn Cys Asp Pro Lys Cys Glu Gln Lys Cys Glu Ser Lys Cys Gln 25 Pro Ser Cys Leu Lys Lys Leu Leu Gln Arg Cys Phe Glu Lys Cys Pro 45 Trp Glu Lys Cys Pro Ala Pro Pro Lys Cys Leu Pro Cys Pro Ser Gln 55 60 Ser Pro Ser Ser Cys Pro Pro Gln Pro Cys Thr Lys Pro Cys Pro Pro 70

Lys Cys Pro Ser Ser Cys Pro His Ala Cys Pro Xaa Pro Cys Pro Pro

90

Pro Glu

<210> 1591

<211> 43

<212> PRT

<213> Homo sapiens

<400> 1591

Met Cys Gly Gly Trp Asp Pro Val Ala His Pro Cys Arg Ser Cys Pro 1 5 10 15

Ser His Ala Arg Arg Val Phe Val Val Thr Pro Cys Cys His Leu
20 25 30

Phe Ser Ser Leu Cys Glu Asp Leu Asp Trp Gln

<210> 1592

<211> 157

<212> PRT

<213> Homo sapiens

<400> 1592

Met Ala Thr Pro Pro Lys Arg Arg Ala Val Glu Ala Thr Gly Glu Lys
1 5 10 15

Val Leu Arg Tyr Glu Thr Phe Ile Ser Asp Val Leu Gln Arg Asp Leu 20 25 30

Arg Lys Val Leu Asp His Arg Asp Lys Val Tyr Glu Gln Leu Ala Lys 35 40 45

Tyr Leu Gln Leu Arg Asn Val Ile Glu Arg Leu Gln Glu Ala Lys His 50 55 60

Ser Glu Leu Tyr Met Gln Val Asp Leu Gly Cys Asn Phe Phe Val Asp 65 70 75 80

Thr Val Val Pro Asp Thr Ser Arg Ile Tyr Val Ala Leu Gly Tyr Gly
85 90 95

Phe Phe Leu Glu Leu Thr Leu Ala Glu Ala Leu Lys Phe Ile Asp Arg

Lys Ser Ser Leu Leu Thr Glu Leu Ser Asn Ser Leu Thr Lys Asp Ser 115 120 125

Met Asn Ile Lys Ala His Ile His Met Leu Leu Glu Gly Leu Arg Glu 130 135 140

Leu Gln Gly Leu Gln Asn Phe Pro Glu Lys Pro His His 145 150 155

<210> 1593

<211> 119

<212> PRT

<213> Homo sapiens

<400> 1593

Met Glu Ala Ser Ala Leu Thr Ser Ser Ala Val Thr Ser Val Ala Lys

10 15

Val Val Arg Val Ala Ser Gly Ser Ala Val Val Leu Pro Leu Ala Arg 20 25 30

Ile Ala Thr Val Val Ile Gly Gly Val Val Ala Val Pro Met Val Leu
35 40 45

Ser Ala Met Gly Phe Thr Ala Ala Gly Ile Ala Ser Ser Ser Ile Ala 50 55 60

Ala Lys Met Met Ser Ala Ala Ile Ala Asn Gly Gly Val Ala 65 70 75 80

Ser Gly Ser Leu Val Ala Thr Leu Gln Ser Leu Gly Ala Thr Gly Leu 85 90 95

Ser Gly Leu Thr Lys Xaa Ile Leu Gly Ser Ile Gly Ser Ala Ile Ala 100 105 110

Ala Val Ile Ala Arg Phe Tyr 115

<211> 81 <212> PRT <213> Homo sapiens <400> 1594 Met Tyr Ile Gln Cys Cys Glu Trp Leu Gln Ser Trp Arg Ser Lys Asp 10 Glu Phe Cys Leu Glu Glu Ser Gly Lys Ala Ser Trp Arg Arg Glu Gln 25 Trp His Gly Pro Xaa Xaa Val Arg Ser Phe Gln Phe Ile Pro Phe Lys 40 His Cys Ser His Val Ala Phe Lys His Ser Ile Val Leu Ala Val Thr 55 60 Gln Ala His Ser Ala Lys Gly Ser Thr Ser Phe Ser Ala Met Arg Thr 70 Tvr <210> 1595 <211> 65 <212> PRT <213> Homo sapiens <400> 1595 Met Val Gly Val Ser Val Cys His His Ile Arg Val Gly Ile Lys Arg 10 Arg Lys Ala Ala Leu Leu Glu Leu Cys Gly Leu Leu Gln Val Arg Val 20 Ala Gly Asn Arg Thr Thr Leu Leu Leu Glu Glu Lys Arg Asn Ser Phe 40 Ser Ala Xaa Thr Arg Lys Ala Val Phe Phe Ser Gly Asp Leu His Phe 55 Ser 65 <210> 1596 <211> 111 <212> PRT <213> Homo sapiens <400> 1596 Met Pro Ser Arg Thr Ala Arg Tyr Ala Arg Tyr Ser Pro Arg Gln Arg 1 10 Arg Arg Arg Met Leu Ala Asp Arg Ser Val Arg Phe Pro Asn Asp Val 20 Leu Phe Leu Asp His Ile Arg Gln Gly Asp Leu Glu Gln Val Gly Arg Phe Ile Arg Thr Arg Lys Val Ser Leu Ala Thr Ile His Pro Ser Gly 55 Leu Ala Ala Leu His Glu Ala Val Leu Ser Gly Asn Leu Glu Cys Val 70 75 Lys Leu Leu Val Lys Tyr Gly Ala Asp Ile His Gln Arg Asp Glu Ala 90 Gly Trp Thr Pro Leu His Ile Ala Cys Ser Asp Gly Tyr Leu Thr 105 <210> 1597 <211> 33 <212> PRT <213> Homo sapiens <400> 1597 Met Ala Trp Gly Gly Trp Gly Ala His Ser Ala Cys Ser Glu Glu Arg 10 Ala Thr Arg Pro Val Glu Gly Ala Tyr Ser Gly Arg Trp Gly Gln Ala

25

Gln

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  <213> Homo sapiens
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 Arg Glu Arg Gln Lys Phe Phe Glu Asp Ile Leu Gln Pro Glu Thr Glu
             20
                                  25
 Phe Val Phe Pro Leu Ser His Leu His Leu Glu Ser Gln Arg Pro Pro
         35
                                                  45
 Ile Gly Ser Ile Ser Ser Met Glu Val Asn Val Asp Thr Leu Glu Gln
                          55
                                              60
 Val Glu Leu Ile Asp Leu Gly Asp Pro Asp Ala Ala Asp Val Phe Leu
                     70
 Pro Cys Glu Asp Pro Pro Pro Thr Pro Gln Ser Ser Gly Val Asp Asn
                                      90
 His Leu Glu Glu Leu Ser Leu Pro Xaa Ala Tyr Ile Arg Gln Asp His
                                  105
 Ile
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Val Val Pro Val Gly Thr Glu Glu Ala Pro Lys Asp Thr Lys Tyr Ile
             20
                                 25
 Ser Asn Gly Asp Ile Trp Asn Asn Ser Trp Phe Leu Trp Asn Ile Leu
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Lys Leu Pro Val Gln Thr Leu Leu Gln Gly
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<212> DNA
<213> Homo sapiens
<400> 1600
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tattcgttaa tggttaatat aaatttactg ctctaggtta agcctaacat atgtaattgc
                                                                       120
tactagecta ttacttttta gtecattggg aatcactaaa aaaagtagag getttagett
                                                                       180
cattectegg etgettaaat catattgtaa tgttttaaat tgttatgteg teetgtataa
                                                                       240
ccttagg
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<213> Homo sapiens
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catatacagg agtcatcccc tacgttgaca ctggtaagtt gacttcagtc acatgaaaca
                                                                       120
tgtcaccttt ccataaatac tccattccct tttgtgattt tgttctttgc acatgttgtt
                                                                      180
ctatctctgc ctggaatgtg ttctccacct tttgattgtc tgcca
                                                                      225
<210> 1602
<211> 258
<212> DNA
<213> Homo sapiens
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                                                                      120
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cagcaatcgc tggaacagcc atgggccatc cctgctgagt caggaaagaa gctgagggaa
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 gagtcgggat tgaaaagcag cagacaaggg aaatgtggac acaagcacat gaagagaaca
                                                                        240
 ccatgtgaac ataaagat
                                                                       258
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                                                                       120
 gctgagtgct tgaggacgtg tttcaacaga tggttggggt tagtgtgtgt catcacattc
                                                                       180
 gagtggggat taagagaagg aaggctgcct tgctggagct gtgtggtctt ctccaagtga
                                                                       240
 gagtegeagg caatagaact actttgettt tggaggaaaa ggaggaatte atttteagea
                                                                       300
 gacacaagaa aagcagtttt tttttcaggt gctgacggcc a
                                                                       341
 <210> 1604
 <211> 292
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 <213> Homo sapiens
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                                                                       120
tccctatggg atttgtcatt ggatgttatt tagacagaaa gagtgatgaa cggctaactg
                                                                       180
ccttccggaa caagagtatg ttatttaaaa gggaattgca acccagtgaa gaagttacct
                                                                       240
ggaagtaaag actggctaga ttatcgaatg ttcacatttt aaagttctga ga
                                                                       292
<210> 1605
<211> 357
<212> DNA
<213> Homo sapiens
<400> 1605
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                                                                      120
gctcccttct tgcagaaggg agggggaaac atacatttat tcatgccagt ctgttgcatg
                                                                      180
caggettttt ggetteetae ettgeaacaa aataattgea ecaaeteett agtgeegatt
                                                                      240
ccgcccacag agagtcctgg arccacagtc ttttttgctt tgcattgtag gagagggact
                                                                      300
aagtgctaga gactatgtcg ctttcctgag ctaccgagag cgctcgtgaa ctggaat
                                                                      357
<210> 1606
<211> 293
<212> DNA
<213> Homo sapiens
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<221> misc_feature
<222> 13
<223> n=a, g, c or t
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cgtcagttgg tgagtgtccg gccccagtac cagtgaagga caagaaactt ctggaggtca
                                                                      120
aactggggga gctgccaagc tggatcttga tgcggractt cagtcctagt ggcattttcg
                                                                      180
gagcgtttca aaraggttac accggtacta caacaagtac atcaatgtga agaaggggag
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catctcgggg attaccatgg tgctacccta ccacacattc gaagaacccg tat
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<211> 361
<212> DNA
<213> Homo sapiens
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 <222> 323
 <223> n=a, g, c or t
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                                                                       120
 attocagece tragteaggt tetttecagt gteetcaaac acagtaagga gagtgeteta
                                                                       180
 agtgactett tgtgteteae acaatetett gggtteeeag gteaetggtg tagtageeag
                                                                       240
 ctgcatccaa gaagccaggt gagcctgtgc caccaatcac agatactcct taccaaccat
                                                                       300
 ctgccaaccc atgccagccc tgntgcccat ggatgtgcgg ctgtccatgt gccacgccca
                                                                       360
                                                                       361
 <210> 1608
 <211> 305
 <212> DNA
 <213> Homo sapiens
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ctgagegega tagtageage teeggeggea geaacattga etaegaggaa tggeggegge
                                                                       120
tgccgcagga cctgcagcat cccagaggtg cagattttaa tttcagtgac tgaattaaaa
                                                                       180
ggtgtcaaga agctcgaatg gtatgtaggt ctcccatggt atttcaattt aaaaagaagt
                                                                       240
aagcacttga aattttttgg tttaagcaaa tttgttttta cctttataat ttattttaaa
                                                                       300
taata
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<210> 1609
<211> 242
<212> DNA
<213> Homo sapiens
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<221> misc_feature
<222> 152
<223> n=a, g, c or t
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tagaggcatt aaaggtcaga gttctgagac ctgctctgga gtgggcagtg tcaaaccggg
                                                                      120
aaatgettat ageteaaaca geteettgga anttaageta cacagaetgt attttattag
                                                                      180
cttgttaatg ggtggaacca caaatcagcg agaggcatta caatatgcta aaaattttca
                                                                      240
gc
                                                                      242
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tcaccagaag tctttcatct cggtggtcca actcaggatc tcagcctcat tattttctta
                                                                      120
cccttctgga gtgcatatgt gcctttacag ttctgtttgc aaacgctgtc tagcatacta
                                                                      180
agaggatgtt agcaaa
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<210> 1611
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<212> DNA
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<400> 1611
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cagecteege ggeteegggg agaaggtgag gtettgtatg gatgggaagg gtgaggtgeg
                                                                      120
teggecagag gettatttat tgaegggaet gttteetttg geccaegega egtagettet
                                                                      180
gttgtccttg actgggcgcc gcctcccgcc ccgccgcctc ggaagccc
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 <213> Homo sapiens
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 <221> misc_feature
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                                                                       120
aagccagagg tgttccaccc caatccttca ccctcacccc acatcatggt ggcccctggg
                                                                      180
acctggatgg aaaacctctg gcwtcctggg gttctgggct g
                                                                       221
 <210> 1613
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 <212> DNA
<213> Homo sapiens
<400> 1613
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                                                                       120
gctactttct gaatcctaaa gcgctcttcc agctttcaca tttgattccg tggcagaagg
                                                                      180
ctcacagect cacaaagtgg agacaggeag acagteceae etcattteaa etccagagtt
                                                                      240
ggggaacgtg ctgggggtgc tcagccagag cctctcagcc aggccttgtg aggcagaggg
                                                                      300
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<213> Homo sapiens
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gacatttaaa atttttctgg ttgtagcctc attactgtat agaaatcaac taccagatga
                                                                      120
gtagttgaca gacacageta gettggttge ttgettgetg ttettgeege e
                                                                      171
<210> 1615
<211> 193
<212> DNA
<213> Homo sapiens
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gcgtgagcac cacgtccggc cacaaaagag ctttgatgca cacggtgaca gccacatggt
                                                                      120
gcacccggaa gaacaagggg cctgaagtta gttagaccct ccttgctggt tctaccacag
                                                                      180
tegeacgeee cae
                                                                      193
<210> 1616
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<212> DNA
<213> Homo sapiens
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<222> 99
<223> n=a, g, c or t
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catattgtcc aagctattcg catggaagct accagagtnc gtgaagaatg ggaacatgct
                                                                      120
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tactgctttg tatctggctc	agctgctctc aacagctaac	tatggtttta	gcactgagtg gatctcttcc	aagatgeete getetaaegt getgetteae getgaagta	tggccggcaa	180 240 300 349
<210> 1617 <211> 155 <212> DNA <213> Homo	sapiens					
aatgccctgt	ttccttccct		agtcaactct	gtcctgtctc atacaatatt		60 120 155
<210> 1618 <211> 185 <212> DNA						
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attgtctgtt	actaatctct	attctaaaaa	ttcagctcaa	ttctcaacca ccactttcct	tactccaaac	120 180 185
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		gccattgtcc		agtatagctc cctggaaac	eggrggegrg	120 169
<210> 1620 <211> 246 <212> DNA						
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(223) H-a,	g, c or c					
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<210> 1621 <211> 280 <212> DNA <213> Homo	sapiens					
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<211> 400
<212> DNA
<213> Homo sapiens
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<221> misc_feature
<222> 43
<223> n=a, g, c or t
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<400> 1622

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gagcgagctc	ctgctgcaac	tctgctccag	cacggccagc	gccagcgccc	gccgtcggtg	180
cactctacga	gccgtgcagc	gtgcccactg	gagttgttgt	gtatcaagga	tcgatcccct	240
atatgcacac	acacacctcc	acctccacca	atgcactctt	cttcctcctc	cttctccaga	300
caactgctgg	gaaaaaaata	aaacaccaac	cccaaccgtc	agcaacaagg	taasmgagcg	360
attcgacatc	atttttttc	ctgttcaatt	ttttccttgt			400

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